

ANNEX Pasig River Expressway Project

Prepared for:



SMC Infrastructure

Prepared by:



RHR Consulting Services, Inc.

2022



Proof of Authority



Republic of the Philippines Department of Transportation TOLL REGULATORY BOARD



5th Floor, The Columbia Tower, Barangay Wack-Wack. Mandaluyong City

17 July 2020

SAN MIGUEL CORPORATION INFRASTRUCTURE

11F San Miguel Properties Centre St. Francis St., Mandaluyong City

Attention: Atty. Lorenzo G. Formoso III Head- Infrastructure SMC Senior Vice President

Subject: Pasig River Expressway Project (PAREX)

Gentlemen:

This has further reference to our letter dated March 5, 2020 and the subsequent discussions between TRB and the representatives of SMC and PNCC with regard to the proposed Pasig River Expressway project to be implemented under P.D. No. 1894.

Please be informed that the Board, during its June 29, 2020 meeting, has declared the Pasig River Expressway as a Toll Road Project. Thus, we will now proceed to fully evaluate your investment proposal, including the technical, financial and legal components of the project.

We will advise you of developments in due course.

Best regards.

Very truly yours,

IAM P. SALES Engr. ABRA

Executive Director II PUT OREF No. APS-2020

Cf:

Atty. Miguel Umali President, PNCC

All Board Members and Alternates

Telephone Nos. (02) 631-5901, 631-4373, 631-4749, 6314673 Fax No. (02) 631-5025

Office of the President of the Philippines Malacañany

NOV 1 1 2019

MR. MIGUEL E. UMALI President Philippine National Construction Corporation (PNCC) PNCC Complex, KM 15 East Service Road, Bicutan Parañague City

Dear Mr. Umali:

With reference to your letter dated 08 July 2019 regarding the Pasig River Expressway (PAREX) Project, and upon your representations, please be advised that pursuant to the franchise of the PNCC under Presidential Decree No. 1894, the President has APPROVED the assignment of the PNCC's usufructuary rights over its franchise in favor of the joint venture company to be formed by the PNCC with San Miguel Holdings Corporation, subject to compliance with existing laws, rules and regulations.

This approval shall be limited solely to the proposed assignment of the PNCC's usufructuary rights over its franchise, and shall not be construed as an approval of the scope, alignment, technical specifications, and other matters pertaining to the PAREX Project, which shall be subject to the necessary approvals of relevant government agencies and instrumentalities, including those issued by the Department of Environment and Natural Resources, as well as the approval of the Supplemental Toll Operation Agreement by the Toll Regulatory Board.

Moreover, considering the possible significant impact of the Project, given its location within Metro Manila, it should be consistent with and not intrude upon existing projects along or crossing the Pasig River.

Should this Office determine that the alignment of the PAREX Project may affect the security of the Malacañang Complex, the PNCC, the SMHC, and their assigns and representatives shall be obligated to comply with any and all security measures that shall be imposed by this Office.

In addition, the PNCC and SMHC should ensure compliance with all environmental laws and instill measures to mitigate the environmental impact of the Project.

Violation or non-compliance with any of the aforementioned conditions or any existing or applicable laws, rules, and regulations shall be a ground for the revocation by the President of his approval of the proposed assignment of usufructuary rights.

For your guidance.

Very truly yours,

By authority of the President:

861 SALVADOR C. MEDIALDEA **Executive Secretary**

ANNEX 2

SEC Registration



FR/ioo

REPUBLIC OF THE PHILIPPINES SECURITIES AND EXCHANGE COMMISSION Ground Floor, Secretariat Building, PICC City of Pasay, Metro Manila

COMPANY REG. NO. A200018496

CERTIFICATE OF FILING OF AMENDED ARTICLES OF INCORPORATION

KNOW ALL PERSONS BY THESE PRESENTS:

THIS IS TO CERTIFY that the amended articles of incorporation of the

SAN MIGUEL HOLDINGS CORP. DOING BUSINESS UNDER THE NAME AND STYLE OF SMC INFRASTRUCTURE (Amending Article VII thereof)

copy annexed, adopted on <u>November 27, 2020</u> by a majority vote of the Board of Directors and by the vote of the stockholders owning or representing at least two-thirds of the outstanding capital stock, and certified under oath by the Assistant Secretary and a majority of the Board of Directors of the corporation was approved by the Commission on this date pursuant to the provision of Section 15 of the Revised Corporation Code of the Philippines, Republic Act No. 11232, which took effect on February 23, 2019 and copies thereof are filed with the Commission.

Unless this corporation obtains or already has obtained the appropriate Secondary License from this Commission, this Certificate does not authorize it to undertake business activities requiring a Secondary License from this Commission such as, but not limited to acting as: broker or dealer in securities, government securities eligible dealer (GSED), investment adviser of an investment company, close-end or open-end investment company, investment house, transfer agent, commodity/financial futures exchange/broker/merchant, financing company, pre-need plan issuer, general agent in pre-need plans and time shares/club shares/membership certificates issuers or selling agents thereof. Neither does this Certificate constitute as permit to undertake activities for which other government agencies require a license or permit.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of this Commission to be affixed to this Certificate at Pasay City, Metro Manila, Philippines, this 2^{10} day of January, Twenty Twenty One.

GERARDO F. DEL ROSARIO Director

Company Registration and Monitoring Department

ARTICLES OF INCORPORATION OF

<u>SAN MIGUEL HOLDINGS CORP.</u> doing business under the name and style of <u>SMC INFRASTRUCTURE</u> (formerly San Miguel Holdings Corp.) (As amended on May 12, 2017)

KNOW ALL MEN BY THESE PRESENTS:

The undersigned incorporators, all of legal age and majority of whom are residents of the Philippines, have this day voluntarily agreed to form a stock corporation under the laws of the Republic of the Philippines

AND WE HEREBY CERTIFY THAT:

FIRST - The name of said corporation shall be:

SAN MIGUEL HOLDINGS CORP. doing business under the name and style of SMC INFRASTRUCTURE (As amended on May 12, 2017)

SECOND - The purpose or purposes of this corporation are:

PRIMARY PURPOSE

To invest in, purchase, or otherwise acquire and own, hold, use, sell, assign, transfer, mortgage, pledge, exchange, or otherwise dispose of real and personal property of every kind and description, including shares of stock, bonds, debentures, evidence of indebtedness, and other securities or obligations of any corporation or association for whatever lawful purpose or purposes the same may have been organized, including but not limited to those engaged in the logistics, mining, infrastructure, communications businesses, and to pay therefor in money or by exchanging therefor stock, bonds, or other evidences of indebtedness or securities of this or any other corporation; and while owner or holder of any such real or personal property, stocks, bonds, debentures, evidence of indebtedness, and other securities or obligations of such stock, to receive, collect, and dispose of the interest, dividends, and income arising from such property, and to possess and exercise in respect thereof all the rights, powers and privileges of ownership, including all voting powers of any stock so owned.

SECONDARY PURPOSES

r, #

1. To own, lease, construct or otherwise acquire, own, hold, manage, operate, maintain, sell, lease, or dispose of, ports, warehouses, cold storage vaults, refrigerating equipment, and other structures with the real estate necessary therefore, as may be necessary or useful for the achievement of the primary purpose of the Corporation.

2. To own or lease all lands of, motor vehicles, ships, boats, vessels, as well as aircrafts, as may be necessary to carry out the primary purpose.

3. To apply for, obtain, register, purchase, lease, or otherwise acquire, and to the extent authorized by law, to hold, use, own, operate, develop and introduce, sell, assign, and otherwise dispose of any trademarks, trade names, distinctive marks, patents, inventions, improvements and processes, used in connection with, or secured under letters patent of the Republic of the Philippines, or elsewhere or otherwise, and necessary or useful for the achievement of the primary purposes of the Corporation in connection with the business of the Corporation, and to use, exercise, grant licenses in respect of, and otherwise, turn to account, any such patents, inventions, processes and the like or any such property rights.

4. To own, register, or acquire license for all types of software and data bases in relation to electronic commerce technology or as may be necessary to carry out the aforementioned businesses.

5. To enter into, make, perform and carry out contracts of every kind and for any lawful purpose, pertaining to the business of the Corporation, or in any manner incident thereto, as principal agent, or otherwise, with any person, firm, association, or corporation.

To borrow such sums of money, and to contract such debts, from 6. time to time, as may be deemed necessary for, or of aid in the accomplishment of, any of its lawful purposes or objects; to execute, issue and dispose of its promissory notes, bonds, debentures, certificates, and other negotiable or transferable instruments or other securities, or evidence of indebtedness, for any monies, so borrowed, or debts so contracted, and to secure the same by pledge of any of its personal property, or by mortgage or mortgages, or deed or deeds of trust, upon any, or all, of the assets, properties, concessions, subsidies or franchises of the Corporation, or by deeds constituting liens and charges upon and affecting the income and revenue of its properties, in whole or in part, upon such lawful terms and conditions, as may be set forth in the instrument or instruments mortgaging or affecting the same, or in any contract, deed or instrument, relating thereto; to confer upon the holder of any debentures or bonds of the Corporation, secured or unsecured, the right to convert the principal thereof into stock of the Corporation, upon such lawful terms and conditions, as

shall be fixed by the Board of Directors, all subject to the limitations established by the law.

7. Generally, to do and perform all such things, transact such business, exercise such power and authority as may be directly or indirectly necessary, suitable or proper for the accomplishment of its purposes or the attainment of any or more of the objects therein enumerated, or which shall appear at any time conducive to, or expedient for, the Corporation or which have been conferred by law upon corporation of like nature. (As amended on November 23, 2007)

THIRD - The place where the principal office of the corporation is to be established is in No. 40 San Miguel Avenue, Mandaluyong City, Metro Manila. (As amended on November 28, 2014)

FOURTH - The term for which the corporation is to exist is fifty (50) years from and after the date of issuance of the certificate of incorporation.

FIFTH - The names, nationalities, and residences of the incorporators are as follows:

Name	<u>Nationality</u>	Residence
Ferdinand K. Constantino	Filipino	95 Celery Drive, Valle Verde V, Pasig City
Ma. Belen C.Buensuceso	Filipino	347 Santiago Street Ayala Alabang, Muntinlupa City
Lubin B. Nepomuceno	Filipino	303 McGregor St., Pentagon Homes Old Balara, Quezon City
Benjamin S. Lagman	Filipino	No. 43 London Street Capitol Homes, Quezon City
Eleanor P. Blomdahl	Filipino	8217 Acacia Street Marcelo Green Village Parañaque City, Metro Manila

SIXTH - The number of directors of said corporation shall be five (5) and the names, nationalities and residences of the first directors who are to serve until their successors are elected and qualified as provided by the by-laws are as follows:

1. 1

. .

Name	<u>Nationality</u>	Residence
Ferdinand K. Constantino	Filipino	95 Celery Drive, Valle Verde V, Pasig City
Ma. Belen C.Buensuceso	Filipino	347 Santiago Street Ayala Alabang, Muntinlupa City
Lubin B. Nepomuceno	Filipino	303 McGregor St., Pentagon Homes Old Balara, Quezon City
Benjamin S. Lagman	Filipino	No. 43 London Street Capitol Homes, Quezon City
Eleanor P. Blomdahl	Filipino	8217 Acacia Street Marcelo Green Village Parañaque City, Metro Manila

SEVENTH - The authorized capital stock of the corporation is <u>NINETY</u> ONE BILLION FIVE HUNDRED MILLION PESOS (P91,500,000,000.00), in lawful money of the Philippines, divided into <u>NINETY ONE MILLION FIVE</u> <u>HUNDRED THOUSAND SHARES (91,500,000)</u> shares with a par value of ONE THOUSAND (P1,000.00) pesos per share. (As amended on 27 November 2020)

EIGHTH - At least 25% of the authorized capital stock has been subscribed and at least 25% of the total subscription has been paid as follows:

Name	<u>Citizenship</u>	<u>No. of</u> <u>Shares</u> <u>Subscribed</u>	<u>Amount</u> Subscribed	<u>Amount</u> <u>Paid</u>
San Miguel Corporation	Filipino	249,995	P249,995,000.00	P62,495,000.00
Ferdinand K. Constantino	Filipino	1	1,000.00	1,000.00
Ma. Belen C. Buensuceso	Filipino	1	1,000.00	1,000.00
Lubin B. Nepomuceno	Filipino	1	1,000.00	1,000.00

4

Benjamin S. Lagman	Filipino	1	1,000.00	1,000.00
Eleanor P. Blomdahl	Filipipo	4	4 000 00	
Biomaam	i ilipilio	а <u>т</u>	1,000.00	1,000.00
Total				
Total		250,000	P250,000,000.00	P62,500,000.00

NINTH - No transfer of stock or interest which would reduce the stock ownership of Filipino citizens to less than the required percentage of the capital stock as provided by existing laws shall be allowed or permitted to be recorded in the proper books of corporation and this restriction shall be indicated in the stocks certificates issued by the corporation.

TENTH - ELEANOR P. BLOMDAHL has been elected by the subscribers as treasurer of the corporation to act as such until his/her successor is duly elected and qualified in accordance with the by-laws; and that as such Treasurer, he/she has been authorized to receive for and in the name and for the benefit of the corporation, all subscriptions paid in by the subscribers.

IN WITNESS WHEREOF, we have set our hands this Dec. 5, 2000 at Mandaluyong City.

(Sgd.) FERDINAND K. CONSTANTINO (Sgd.) MA. BELEN C. BUENSUCESO

(Sgd.) LUBIN B. NEPOMUCENO

1, 1

(Sgd.) BENJAMIN S. LAGMAN

(Sgd.) ELEANOR P. BLOMDAHL

WITNESSES:

(Sgd.) Vilma S. Castillo

(Sgd.) Ma. Leticia E. Pamen

5

ACKNOWLEDGEMENT

Republic of the Philippines) MANDALUYONG CITY) S.S.

and sugar

BEFORE ME, a Notary Public in and for Mandaluyong City, Philippines, this Dec. 5, 2000 personally appeared:

<u>Name</u>	<u>Community Tax</u> <u>Cert. No.</u>	Date & Place Issued
Ferdinand K. Constantino	01652886	02.24.00; Pasig City
Ma. Belen C. Buensuceso	C10150930	02.28.00; Mandaluyong City
Lubin B. Nepomuceno	07317243	01.27.00; Manila
Benjamin S. Lagman	10538112	02.29.00; Quezon City
Eleanor P. Blomdahl	09962208	03 14 00: Makati City

all known to me and to me known to be the same persons who executed the foregoing Articles of Incorporation and they acknowledged to me that the same is their free and voluntary act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal on the date and at the place first above written.

(Sgd.) MA. CLARISSA C. ARGUELLES NOTARY PUBLIC Until December 31, 2001 PTR No. 0487185L; 1/6/2000; Mandaluyong City TIN 152-015-413

• i

Doc. No. 202; Page No. 42; Book No. III; Series of 2000.

SECURITIES AND EXCHANGE COMMISSION CRMD JAN 06 202 RECEIVED Time:

REPUBLIC OF THE PHILIPPINES) MANDALUYONG CITY) S.S.

CERTIFICATE OF AMENDMENT OF THE ARTICLES OF INCORPORATION OF SAN MIGUEL HOLDINGS CORP. doing business under the name and style of SMC INFRASTRUCTURE

KNOW ALL MEN BY THESE PRESENTS:

We, the undersigned, constituting at least the majority of the members of the Board of Directors and the Corporate Secretary of SAN MIGUEL HOLDINGS CORP. doing business under the name and style of SMC INFRASTRUCTURE (the "Corporation"), a corporation duly organized and existing under Philippine laws with principal place of business at No. 40 San Miguel Avenue, Mandaluyong City, after being sworn in accordance with law, hereby certify that:

1. The Corporation, during the Special Meetings of the Board of Directors and stockholders, both held on 27 November 2020 at the Corporation's principal place of business, by the affirmative vote of at least a majority of the members of its Board of Directors and by the affirmative vote of its stockholders owning at least two-thirds of the outstanding capital stock of the Corporation, has approved the amendment of Article Seven of the Articles of Incorporation of the Corporation to reflect the increase in its authorized capital stock *from* Php71,500,000,000.00, divided into 71,500,000,000.00, divided into 91,500,000 common shares with a par value of Php1,000.00 per share *to* Php91,000.00 per share.

2. Attached is the true and correct copy of the Amended Articles of Incorporation of the Corporation, with the amended provisions duly underscored.

IN WITNESS WHEREOF, we have signed these presents on _____ at Mandaluyong City.

RAMON S. ANG Chairman and President TIN: 118-247-725

FERDINAND K. CONSTANTINO Director TIN: 119-123-901 BELL ARRA

or

372-994

JOSEPH N. PINEDA Director TIN: 106-905-782

JACOBO TRISTAN C. ZOBEL Director TIN: 246-663-137

Attested by:

TIN:

MARY ROSE S. TAN Assistant Corporate Secretary **SUBSCRIBED AND SWORN** to before me on <u>DEC 18 2020</u> at Mandaluyong City, the following persons with their Competent IDs, as follows:

Name

Competent I.D. No.

Ramon S. Ang Ferdinand K. Constantino Joseph N. Pineda Bella O. Navarra Jacobo Tristan C. Zobel Mary Rose S. Tan Passport P2247867B Passport PO341304A Passport P7419331A Passport P1969090A Passport P1721411A Passport EC7497475 Date & Place Issued

05.22.2019; DFA Manila 09.22.2016; DFA NCR East 06.03.2018; DFA NCR South 02.18.2017; DFA NCR East 01.23.2017; DFA Manila 04.26.2016; DFA NCR East

 Doc. No.:
 497 ;

 Page No.:
 101 ;

 Book No.:
 11 ;

 Series of 2020.



PAULA KATHERINA A. GAN Commission No. 0308-19 Notary Public for Mandaluyong City Until December 31, 2020 SMC, 40 San Miguel Ave., Mandaluyong City Roll No. 55988 PTR No. 4324707; 01/07/20; Mandaluyong City IBP Lifetime Number No. 013353; 02/05/15, QC MCLE Complia..ce No. VI-0019930; 04/14/22; Pasig City



Republic of the Philippines Department of Finance Securities and Exchange Commission

Company Registration and Monitoring Department Compliance Monitoring Division

MONITORING SHEET – NO PENALTY

Corporate Name	SAN MIGUEL HOLDINGS COR INFRASTRUCTURE	P. DOING BUSINESS UNDER 1	THE NAME AND STYLE OF SMC
Registration No.	A200018496	Date of Registration	
Term of Existence	50 YEARS	Annual Meeting	ANY DAY IN APRIL
Principal Office	NO. 40 SAN MIGUEL AVENUE, MANDALUYONG CITY	Actual Meeting	APRIL 30, 2020
No. of Directors/Trustees	5	Fiscal Year	DECEMBER 31

X STOCK CORPORATION		NON-STOCK COR	NON-STOCK CORPORATION	
Authorized Capital Stock	P 71,500,000,000.00			
Paid-Up Capital Stock	P 67,235,155,000.00	Equity/Fund Balance	Р	
Retained Earnings	Р	Negative Fund Balance	Р	
Deficit	P 5,524,644,000.00			
Capital Deficiency	Р	Fiscal Year ended		
Fiscal Year ended	DECEMBER 31, 2019			
Fine: P 500.00 per year, per report		Fine: P per year, per	report	

		COMPUTA	FION OF FINES		
YEAR	General Infor	mation Sheet	Financia	al Statements	FINE
2017	MONITORED	10/24/2017	ОТ		
2018	ОТ		ОТ		
2019	ОТ		ОТ		
2020	ОТ				
Stock and T	ransfer Book / Memb	ershin Book (MONITOP	ED)		

Stock and Transfer Book / Membership Book (MONITORED)

OT - On Time			
NF - Not Filed	Monitored by:	FOTALIMAO/CMD	DATE: 11/25/2020
FL/RL - Filed/Registered Late]	Q.	

Compliant with all reportorial requirements as of November 27, 2020.

Cleared CIS-URDB as of November 27, 2020.

The findings/assessment is based on the documents/reports available in the SEC database and the documents presented by the party to the monitor as of: ______

Representative Signature Over Printed Name

For the Directo	r: GERARDO F. DEL ROSARIO
	<u>A</u>
	Like
Reviewed By:	EMERLIZA M. CASTRO
	Securities Specialist I
	Pasay City.

Note:

 $\sqrt{}$

This assessment does not constitute as waiver of any fine or penalty for deficiencies in reportorial requirements due from, or may hereafter be assessed against, the corporation nor does it preclude the institution of any action against the corporation for violation of any of the provisions of the Corporation Code of the Philippines, the Securities Regulation Code, and its implementing rules and regulations, and other pertinent laws, rules and regulations implemented by the Commission.

In case the corporation is subject of a complaint or investigation by the Commission or any party, the computation of penalty may be years, earlier than the five (5) years and imposition of fine shall be made if warranted.

PLEASE NOTE THAT THIS MONITORING IS A WORK FROM; HENCE WE ARE USING DATA/INFORMATION IN EXTENT OF ALL THE RESOURCES THAT IS AVAILABLE FOR THIS SET-UP

MANAGEMENT REPRESENTATION

To the Securities and Exchange Commission:

In connection with the application of **SAN MIGUEL HOLDINGS CORP. doing business under the name and style of SMC INFRASTRUCTURE** for increase in authorized capital stock *from* Php71,500,000,000.00 *to* Php91,500,000,000.00, the undersigned hereby declares under oath that:

- (1) All information and representation contained in the submitted application and its supporting documents are true and correct;
- (2) The verification procedures required by the Commission were conducted by an independent auditor who issued a report thereon, in accordance with the auditing standards in force;
- (3) The items/accounts subject of the application are authorized, valid and legal; and
- (4) The shares of stock to be issued are not watered.

The management hereby authorizes the Commission to examine anytime, even after the approval of the application, the company's books of accounts and records to determine the validity and accuracy of the transaction.

SAN MIGUEL HOLDINGS CORP. doing business under the name and style of SMC INFRASTRUCTURE By: RAMON S. ANG Chairman and President JOSEPH N. PINEDA Treasurer DEC 18 2020 Date:

SUBSCRIBED AND SWORN to before me on ______at Mandaluyong City, the following persons with their Competent IDs, as follows:

Name

Competent I.D. No.

Date & Place Issued

Ramon S. Ang Joseph N. Pineda

Passport P2247867B Passport P7419331A

05.22.2019; DFA Manila 06.03.2018; DFA NCR South

Doc. No. : Page No.: Book No.: 11 Series of 2020.

PAUL WATHERINAA. GAN Commission No. 0308-19 Notary Public for Mandaluyong City Until December 31, 2020 SMC, 40 San Miguel Ave., Mandaluyong City Roll No. 55988 PTR No. 4324707; 01/07/20; Mandaluyong City IBP Lifetime Number No. 013353; 02/05/15, QC MCLE Compli....ce No. VI-0019930; 04/14/22; Pasig City



BOA/PRC Accreditation No. 4782 October 4, 2018, valid until August 15, 2021 SEC Accreditation No. 0207-FR-3 (Group A) August 29, 2019, valid until August 28, 2022 Citibank Tower 8741 Paseo de Roxas Makati City 1226 Philippines Phone : +632 8 982 9100 Fax : +632 8 982 9111 Website : www.reyestacandong.com

December 18, 2020

Securities and Exchange Commission SEC Building, EDSA, Greenhills Mandaluyong City

Attention: Atty. Justina F. Callangan Director - Corporate Governance and Finance Department

Re: San Miguel Holdings Corp. doing business under the name and style of SMC Infrastructure

Madam:

In connection with the application of San Miguel Holdings Corp. doing business under the name and style of SMC Infrastructure (the Company) for the increase in its authorized capital stock, the undersigned hereby declares:

- (1) That, as an external auditor engaged by the said company, we conducted the verification procedures required under Section 2 of the Guidelines on On-site Verification of Financial Records Relative to Certain Applications Filed with the Commission, SEC Memorandum Circular No. 6, Series of 2008, and that we observed all the requirements of existing auditing standards and practices applicable to the said engagement; and
- (2) That since the foregoing engagement does not involve an audit or review of the Company's financial statements but only the conduct of a set of agreed-upon procedures and issuance of a report of factual findings thereon, we gave a "no assurance" statement in our December 18, 2020 report attached to this letter. We understand, however, that the "no assurance" statement in our said report does not exempt us from responsibility over the conduct of the said procedures and the factual findings stated therein.

REYES TACANDONG & CO.

BELINDA B. FERNANDO Partner CPA Certificate No. 81207 Tax Identification No. 102-086-538-000 BOA Accreditation No. 4782; Valid until August 15, 2021 SEC Accreditation No. 81207-SEC Group A Issued January 30, 2020 Valid For Financial Periods 2019 to 2023 BIR Accreditation No. 08-005144-004-2019 Valid until October 16, 2022 PTR No. 8116474 Issued January 6, 2020, Makati City

THE POWER OF BEING UNDERSTOOD AUDIT | TAX | CONSULTING





BOA/PRC Accreditation No. 4782 October 4, 2018, valid until August 15, 2021 SEC Accreditation No. 0207-FR-3 (Group A) August 29 2019, valid until August 28, 2022
 Citibank Tower

 8741 Paseo de Roxas

 Makati City 1226 Philippines

 Phone
 : +632 8 982 9100

 Fax
 : +632 8 982 9111

 Website
 : www.reyestacandong.com

Report of Factual Findings

The Stockholders and the Board of Directors San Miguel Holdings Corp. doing business under the name and style of SMC Infrastructure No. 40 San Miguel Avenue Mandaluyong City 1550 Metro Manila, Philippines

Gentlemen:

We have performed the procedures agreed to by management with respect to the cash payment for subscriptions to the proposed increase in authorized capital stock of **San Miguel Holdings Corp. doing business under the name and style of SMC Infrastructure** (the Company) as at December 18, 2020 as set forth in the accompanying schedules. Our engagement was undertaken in accordance with Philippine Standard on Related Services (PSRS) 4400, "Engagements to Perform Agreed-upon Procedures regarding Financial Information." The procedures were in accordance with the procedures required by the Securities and Exchange Commission (SEC) in accordance with the application of the Company with the SEC for an increase in its authorized capital stock as provided under Section 2 of the SEC Memorandum Circular No. 6, Series of 2008, "Guidelines on On-Site Verification of Financial Records relative to certain Applications Filed with the Commission", except for a procedure that was not performed as agreed upon with you and as explained in the following paragraph.

A cash count was not performed as the cash payments for stock subscriptions were already directly deposited in the bank account of the Company. However, as provided in the required SEC procedures, we traced the amounts received to the acknowledgment receipts and to corresponding bank statements.

We report our findings below:

 We obtained a copy of the minutes of the meeting of the board of directors and stockholders held on November 27, 2020, approving the increase in capital stock of the Company from ₽71,500,000,000 divided into 71,500,000 common shares with par value of ₽1,000.00 per share to ₽91,500,000,000, divided into 91,500,000 common shares with par value of ₽1,000.00 per share. Relative to the increase, 10,000,000 common shares were subscribed at a subscription price of ₽1,500.00 per share equivalent to ₽15,000,000, and ₽5,970,893,919 equivalent to 40% of the total subscription were paid as of date.

RSM

2. We obtained from the Company a schedule of cash received as deposits for stock subscription on the proposed increase in capital which showed the following information:

1.1

41

Date				Acknowledgment	
Recorded	Subscriber	Amount Received	Form of payment	Receipt No.	Date Received
5/8/2020	San Miguel	180,000,000	Fund transfer	0000503	5/8/2020
	Corporation				
	(SMC)				
5/29/2020	SMC	166,330,286	Fund transfer	0000504	5/29/2020
6/1/2020	SMC	1,258,065,109	Fund transfer	0000550-0000557	6/1/2020
6/4/2020	SMC	215,984,999	Fund transfer	0000505	6/4/2020
6/4/2020	SMC	9,532,200	Fund transfer	0000506	6/4/2020
6/10/2020	SMC	45,000,000	Fund transfer	0000538	6/10/2020
6/29/2020	SMC	72,874,000	Fund transfer	0000507	6/29/2020
6/29/2020	SMC	6,296,687	Fund transfer	0000508	6/29/2020
6/30/2020	SMC	139,000,000	Fund transfer	0000509	6/30/2020
7/2/2020	SMC	256,800,000	Fund transfer	0000511	7/2/2020
7/2/2020	SMC	1,190,000,000	Fund transfer	0000510	7/2/2020
7/6/2020	SMC	240,000,000	Fund transfer	0000512	7/6/2020
7/9/2020	SMC	15,000,000	Fund transfer	0000539	7/9/2020
7/27/2020	SMC	47,248,000	Fund transfer	0000513	7/27/2020
7/27/2020	SMC	30,927,523	Fund transfer	0000514	7/27/2020
8/5/2020	SMC	96,000,000	Fund transfer	0000515	8/5/2020
8/7/2020	SMC	75,519,400	Fund transfer	0000516	8/7/2020
8/12/2020	SMC	80,000,000	Fund transfer	0000517	8/12/2020
8/14/2020	SMC	14,662,075	Fund transfer	0000519	8/14/2020
8/14/2020	SMC	151,045,000	Fund transfer	0000518	8/14/2020
8/17/2020	SMC	3,000,000	Fund transfer	0000540	8/17/2020
8/20/2020	SMC	378,000,000	Fund transfer	0000520	8/20/2020
9/7/2020	SMC	100,000,000	Fund transfer	0000521	9/7/2020
9/7/2020	SMC	100,746,900	Fund transfer	0000523	9/7/2020
9/7/2020	SMC	60,000,000	Fund transfer	0000524	9/7/2020
9/7/2020	SMC	100,000,000	Fund transfer	0000522	9/7/2020
9/7/2020	SMC	28,617,960	Fund transfer	0000525	9/7/2020
9/8/2020	SMC	196,500,000	Fund transfer	0000526	9/8/2020
9/25/2020	SMC	135,303,000	Fund transfer	0000527	9/25/2020
9/25/2020	SMC	1,235,730	Fund transfer	0000528	9/25/2020
10/1/2020	SMC	15,000,000	Fund transfer	0000541	10/1/2020
10/5/2020	SMC	88,455,000	Fund transfer	0000529	10/5/2020
10/5/2020	SMC	8,809,710	Fund transfer	0000530	10/5/2020
10/9/2020	SMC	50,000,000	Fund transfer	0000532	10/9/2020
10/9/2020	SMC	47,440,341	Fund transfer	0000533	10/9/2020
10/9/2020	SMC	130,000,000	Fund transfer	0000531	10/9/2020
10/15/2020	SMC	219,500,000	Fund transfer	0000534	10/15/2020
10/23/2020	SMC	18,000,000	Fund transfer	0000542	10/23/2020
		₽5,970,893,919			

No exception was noted. The deposits for subscription were received through direct fund transfer made by the subscriber to the Company's bank accounts with Bank of Commerce (Account nos. 093200688528 and 093210005216).

3. We checked the mathematical accuracy of the schedule of cash received.

We found the details in the schedule to be in agreement with the covering copies of acknowledgment receipts and with the corresponding entries in the covering bank statements.

4. We traced the cash received as deposit for stock subscription to the cash receipts book and general ledger. No exception was noted.

5. We inspected all entries in the cash disbursements book of the Company and ascertained that there were no prior disbursements made to the subscriber that can be linked or associated with the subscriber's payment for subscription and that there were no subsequent disbursements, advances or loans granted to the subscriber.

6. We obtained a summary of cash in bank account of the Company and bank reconciliation statements as at the end of the month immediately preceding the submission of the application and ascertained their mathematical accuracy. We traced the receipts and disbursements and other transactions in the summary and compared the bank reconciliation statements to the entries in the general ledger and balances shown per books and bank statements. No exception was noted.

Because the above procedures do not constitute either an audit made in accordance with Philippine Standards on Auditing or a review made in accordance with Philippine Standard on Review Engagements, we do not express any assurance on the financial statements of the Company.

Had we performed additional procedures or performed an audit or a review of the financial statements in accordance with Philippines Standards on Auditing or Philippine Standard on Review Engagements, other matters might have come to our attention that would have been reported to you.

Our report is intended solely for the purpose set forth in the first paragraph of this report and for your information and is not to be used for any other purpose or to be distributed to any other parties. This report relates only to items specified above and does not extend to any financial statements of the Company taken as a whole.

REYES TACANDONG & CO.

BELINDA B. FERNANDO Partner CPA Certificate No. 81207 Tax Identification No. 102-086-538-000 BOA Accreditation No. 4782; Valid until August 15, 2021 SEC Accreditation No. 81207-SEC Group A Issued January 30, 2020 Valid For Financial Periods 2019 to 2023 BIR Accreditation No. 08-005144-004-2019 Valid until October 16, 2022 PTR No. 8116474 Issued January 6, 2020, Makati City

December 18, 2020 Makati City, Metro Manila

ANNEX 3

Sworn Accountability Statement of Proponent

SWORN STATEMENT OF ACCOUNTABILITY OF THE PROPONENT

This is to certify that all the information and commitments in this **ENVIRONMENTAL IMPACT STATEMENT (EIS)** for the **Pasig River Expressway (PAREX) Project** are accurate and complete to the best of our knowledge, and that an objective and thorough assessment of the Project were undertaken in accordance with the dictates of professional and reasonable judgment. Should I/we learn of any information, which would make this EIS inaccurate, I shall immediately bring the said information to the attention of DENR-EMB.

I hereby certify that no DENR-EMB personnel were directly involved in the preparation of EIS other than to provide procedural and technical advice consistent with the guidelines in the DAO 03-30 Revised Procedural Manual.

I hereby bind myself to answer any penalty that may be imposed arising from any misrepresentation or failure to state material information in this EIS

In witness whereof, I hereby set my hand this _____ day of <u>September 2021</u> at _____Mandaluyong City__.

EDGAR L. DOÑA Vice President - Head of Operations SMC Infrastructure

SEP 0 3 2021

SUBSCRIBED AND SWORN TO before me this	day_of
2021, affiant exhibiting his/her Government Issued	ID <u>P0940018B</u> issued at
On	

Doc. No.	94	
Page No.	20	
Book No.	84	
Series of	2021	

ANNEX 4

Sworn Accountability Statement of Preparer

SWORN STATEMENT OF ACCOUNTABILITY OF PREPARERS

This is to certify that all information in this ENVIRONMENTAL IMPACT STATEMENT (EIS) for the **PASIG RIVER EXPRESSWAY PROJECT** of *SMC Infrastructure* are accurate and complete to the best of our knowledge, and that an objective and thorough assessment of the Project was undertaken in accordance with the dictates of professional and reasonable judgment. Should we learn any information which would make this EIS inaccurate, we shall immediately bring the said information to the attention of the DENR-EMB.

We hereby certify that no DENR-EMB personnel were directly involved in the preparation of this EIS other than to provide procedural and technical advice consistent with the guidelines in the DAO 03-30 Revised Procedural Manual.

We hereby bind ourselves jointly and solidarily to answer any penalty that may be imposed arising from any misinterpretation or failure to state material information in this EIS.

In witness thereof, we hereby set our hands this <u>SEP 3 0 2021</u> at <u>CITY OF MARIKINA</u>.

Name	Registration Number	Field of Expertise	Signature
Mr. Jess M. Addawe	IPCO-056	Project Management, EIA Process	R
Mr. Henry James P. Botengan	IPCO-063	Social Impact Assessment	ain
Engr. Catherine L. Addawe	IPCO-055	Water Quality	QUI um
Mr. Arnel M. Mendoza	-	Geology	(A
For. Kristine Ann P. Gillado	IPCO-282	EIA Integration	Entranz
			<u> </u>

SUBSCRIBED AND SWORN TO before me this ____SEP of ____2021, affiants exhibiting their identification information, as follows:

Name	Government Issued ID	Expiry Date/Place Issued		
Mr. Jess M. Addawe	Driver's License ID No. D12-11-000327	01 JAN 2022 / Laguna		
Mr. Henry James P. Botengan	Driver's License ID No. D14-99-098361	31 MAY 2023 / SM Annex EDSA		
Engr. Catherine L. Addawe	Driver's License ID No. D12-08-003212	12 APR 2022 / Laguna		
Mr. Arnel M. Mendoza	PRC License No. 0000567	26 OCT 2022 / Manila		
For. Kristine Ann P. Gillado	Passport ID No. P7279295B	26 JUL 2031 / DFA San Pablo		

Doc No.	514	
Page No.	105	
Book No.	103	
Series of	2021	

ANNEX 5

PEMAPS Questionnaire

PROJECT ENVIRONMENTAL MONITORING AND AUDIT PRIORITIZATION SCHEME (PEMAPS) QUESTIONNAIRE

Project Name	:	Pasig River Expressway Project
Project Location	:	Cities of Manila, Mandaluyong, Taguig, Makati, and Pasig
Proponent	:	SMC Infrastructure
Pollution Control Officer	:	NA
Tel. No./Fax No./Email	:	NA
Project Type	:	Infrastructure Project – Roads and Expressway
Project Status	:	Pre-construction

I. PROJECT CONSIDERATIONS

Size and Type Size based on number of employees Specify number of employees:

500-1,000 workers

Туре

ECP Non-ECP but in ECA Non-ECP and Non-ECA

_____X

Waste Generation and Management

Enumerate Waste Type and Specify Quantity of Wastes generated in your facility. (Identify /Enumerate)

Cotogony	Wests	Ту	Quantitu	
Category	waste	Hazardous	Non-Hazardous	Quantity
Air	Dust		Х	
المسلط	Oil		Х	
Liquid	Domestic Waste Water		Х	
Solid	Domestic Wastes		х	

Pollution Control System (PCS)

Enumerate PCS or Waste Management Method Used in your facility. (Identify /Enumerate)

Category	PCS/Waste Management Method Used	Remarks
	Water Spraying	
	Installation of temporary wind barriers at the	
Air	area	
	Impose speed limits within the project site	
	and along access roads.	
	Modern and sufficient sanitation facilities and	
	disposal systems will be installed	
	Strict fuel and oil dispersal protocols backed-	
Liquid	up by an oil/fuel spill contingency plan	
	Enforce strict policies against indiscriminate	
	disposal of oily waste and wastewater in the	
	river.	
Solid	Segregation at source	
	Recycling	
	Controlled Dumping	

II. PATHWAYS

Prevailing wind towards barrio or city? (mark the corresponding point) Yes <u>x</u> No ____

Rainfall (impacts surface & groundwater pathways) Average annual net rainfall: Specify amount:

2,103.6 mm

Maximum 24-hour rainfall:

403.1 mm

Terrain (select one and mark) Flat	KSteep
Is the facility located in a flood-prone a	rea? (select one and mark) Yes <u>x</u> No
Ground Water Depth of groundwater 0 to less than 3 3 to 10 Greater than 10	table (meter) (select one and mark)
III. RECEIVING MEDIA/RECI	EPTORS
Air (Distance to nearest community) 0 to less than 0.5 0.5 to 1 km Greater than 1 k	(select one and mark) 5 kmx m
Receiving Surface Water Body Distance to receiving surface water: 0 to less than 0.5 0.5 to 1 km Greater than 1 k	(select one and mark) 5 km m
Size of population using receiving surfa Specify number:	ace water No data
Fresh Water Classification of fresh water AA A B C D	(select one and mark)
Size of fresh water body Specify size:	27.427 km
Economic value of water use (may s Drinking Domestic Recreational Fishery Industrial Agricultural	elect more than one of the criteria below)
Salt water Classification of salt water SA SB SC SD	(select one and mark)
Economic value of water use (may s Fishery Tourist zone or p Recreational Industrial	belect more than one of the criteria below)
Ground Water Distance to nearest recharge area	(select one and mark)

	0 to less than 0.5 km 0.5 to 1 km Greater than 1 km	X
Distance to nearest w	vell used 0 to less than 0.5 km 0.5 to 1 km Greater than 1 km	(select one and mark)
Groundwater use with	hin the nearest well Drinking Industrial Agricultural	(may select more than one of the criteria below)
Land Indicate current/actua	al land uses within 0.5 km r Residential Commercial/Institutional Industrial Agricultural/Recreational Protected Area	adius: (may select more than one of the criteria below) x x x x x x x x x x x x x x
Potential/proposed la	nd uses within 0.5 km Residential Commercial/Institutional Industrial Agricultural/Recreational Protected Area	(may select more than one of the criteria below) X X X X X X X X X X
Number of affected E	nvironmentally Critical Area Specify number:	as within 1 km:2
Distance to nearest E	ECA 0 to less than 0.5km 0.5 to 1 km Greater than 1 km	(select one and mark)

IV. ENVIRONMENTAL PERFORMANCE

Compliance (pls. take note that this will be double-checked with PCD files)

Violation		Type (pls. specify	Type of	Additional			
		5					
any)	any)	Emission/Effluent/ Discharge	Ambient	Human Impact	Admin/ ECC	Violation	of Compliance
RA 8749							
RA 9275							
RA 6969							
PD 1586							
RA 9003							

Number of Valid Complaints Citizen and NGOs Specify number: Others (other Govt. Agencies, Private Institutions) Specify number:

(To be filled up by EMB Personnel)

.

RECOMMENDATION/S:

Assessed By:

Noted By:

ACCOUNTABILITY STATEMENT OF PROJECT PROPONENT

This is to certify that all information in the submitted **Project Environmental Monitoring and Audit Prioritization Scheme (PEMAPS) Questionnaire** of **Pasig River Expressway Project (PAREX)** located in the Cities of Manila, Mandaluyong, Taguig, Makati, and Pasig are true, accurate and complete. Should I learn of any information, which makes this inaccurate, I shall bring said information to the appropriate Environmental Management Bureau Office.

SEP 0 3 2021

In witness whereof, I hereby set my hand this _____ day of <u>September 2021</u> at _____.

EDGAR L. DOÑA Vice President - Head of Operations SMC Infrastructure

SUBSCRIBED AND SWORN to before me this SEP 0 3 2021	
day of 2021 atMANDALUYONG CITY A	ffiant
exhibiting to me his government issued identification no. P094001813	
issued at on	

Doc. No. \mathcal{O} SPage No.20Book No.84Series of 2021

ATTY. JAMES K. ABUGAN NOTARY PUBLIC APPT. NO. 0442-21 Until 12/31,2022 IBP No. 134105 Dec. 9, 2020 Rizal Chapter Roll No. 26890 Lifetime MCLE No. VI-0012875 until 4/14/2022 TIN No. 116-239-956 PTR No. 4574511 01/04/2021 Tel. No. (02) 854-523-21 Rm. 314 J&B Bldg., 251 EDSA, Mandaluyong City

ANNEX 6

Public Scoping Documentation Report

JULY 2021

PUBLIC SCOPING REPORT (PSR)

PASIG RIVER EXPRESSWAY PROJECT

14 JULY 2021





1 INTRODUCTION

1.1 The Purpose of Activity

The Public Scoping for the proposed Pasig River Expressway Project of SMC Infrastructure was held on July 14, 2021, 8:00 AM via Zoom Meeting. The Public Scoping was facilitated by representatives from EMB Central Office, SMC Infrastructure (Proponent), and RHR Consulting Services, Inc. (EIA Preparer) and was participated by 100 attendees composed of members/heads of the local sectors, Local Government Units, and other government agencies that are or will be affected by the project. The Public Scoping event aims the following:

- Identification of the most significant issues related to the proposed project;
- Identification of possible impacts of the project; and
- Perception of affected residents and Local Government Units on the project.

In a Public Scoping, it is necessary to present and discuss the EIA Process and the description of the Project to inform all stakeholders about the ongoing processes and activities. Such inclusion establishes transparency in the EIA process and provides more avenues for inclusion and engagement from the stakeholders. It is to be noted that the identified issues will come from the comments, issues, opinions, and suggestions raised by the audience of the Public Scoping or the stakeholders.

On this note, representation of all pertinent individuals and organizations is very critical to assure that all concerns regarding the project will be covered. Thus, the list of stakeholders is composed of representatives of various sectors of the impact cities and LGUs/agencies potentially affected by the project.

During the program, the stakeholders were given ample time to voice out their concerns, comments, and suggestions regarding the project and all of which were addressed by the proponent and representatives from DENR-EMB. These issues were also noted and listed as can be seen in the "issues and concerns raised" part of this report. Aside from this, the event was purposely held at a venue that is near the site and affected areas for the convenience of the identified stakeholders.

1.2 Preparation for Public Scoping

With the current restrictions related to the COVID-19 pandemic and in line with EMB Memorandum Circular 2020-30 (Interim Guidelines on Public Participation on the Implementation of the Philippine Environmental Impact Statement System During the State of National Public Health Emergency), as well as DENR Administrative Order 2017-15 (Guidelines on Public Participation under the Philippine Environmental Impact Statement [EIS] System), the public scoping for the Pasig River Expressway Project was conducted through online video conference – Zoom Meeting.

Public Scoping invitation letters (**Annex C**) duly signed by the EMB Director were distributed to various stakeholders – through email and hard copies.

A Notice of Public Scoping was posted on the EMB Central Office Website (www.eia.emb.gov.ph) on July 1, 2021 and on its Official Facebook Page on July 2, 2021.

Date Posted	Project Name	Project Proponent	Project Location	Date/Time	Zoom Details		
Thursday, 01 July 2021	Pasig River Expressway Project	SMC Infrastructure	Cities of Manila, Mandaluyong, Makati, Pasig and Taguig	14 July 2021 (Wednesday) /8:00 AM (Registration starts at 7:30 AM)	Meeting ID: 844 9094 1094 Passcode: PAREX_PS	Notice of Public Scoping	Project Description
			<image/> <section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	<text><text><text><image/><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text>			

Figure 1. Notices posted on EMB Website and Facebook Page

1.3 Representation of Stakeholders

Table 1 shows the stakeholders invited during the Public Scoping based on Section 5 of DAO 2017-15. In order to impose less physical contact amid the pandemic, invitation letters were sent via email to stakeholder representatives.

There were 101 representatives from various stakeholder groups who attended the Public Scoping Activity.

Stakeholder Group	No. of Poprosontativos
Stakenolder Group	No. of Representatives
Mandaluyong City LGU	2
Taguig City LGU	2
San Juan City LGU	2
Pasig City LGU	5
Makati City LGU	1
Toll Regulatory Board (TRB)	3
Philippine Coast Guard (PCG)	1
Laguna Lake Development Authority (LLDA)	1
Metropolitan Manila Development Authority (MMDA)	4
Department of Transportation (DOTr)	4
Department of Trade and Industry (DTI)	1
Biodiversity Management Bureau (BMB)	1
Environmental Management Bureau (EMB)	2
Private Sector	8
Education Sector	12

Table 1. Stakeholders attended the public scoping via Online Platform – Zoom Meeting
Stakeholder Group	No. of Representatives
Religious Sector	2
Media Sector	2
Transport-related NGOs/Organizations	6
Cultural/Heritage-related NGOs/Organizations	6
Environment-related NGOs/Organizations	8
Other NGOs/Organizations	2
Residents near Pasig River	14
SMC Infrastructure	8
RHR Consulting Services, Inc.	4
TOTAL	101

Note: not simultaneously present

2 NARRATIVE SUMMARY OF PUBLIC SCOPING ACTIVITY

The Public Scoping of the proposed Pasig River Expressway Project was held via Zoom Meeting. The program started at 8:00 AM. In attendance were 101 representatives of various sectors and/or organizations.

The program commenced with the Invocation and Singing of National Anthem led by RHR Consulting Services, Inc. Engr. Edgar Doña of SMC Infrastructure greeted and welcomed the online participants. He indicated that this was the first of the consultations to be conducted for this project during the EIA process. He thanked the participants and DENR for allowing the proponent to organize the event. He further encouraged the participants to take advantage of the meeting to voice out their concerns.

EMB Case Handler Engr. Joel Polintan then led the acknowledgment of participants and proceeded with the presentation of the Philippine EIS System.

Engr. Edgar Doña of SMC Infrastructure presented the project background and showed the location of the alignment, conceptual designs, perspective views, and the construction schedule.

Afterward, the Open Forum was formally opened by Engr. Polintan. Participants were instructed to state their name and organization before voicing their concerns for documentation purposes. Most of the issues raised were on public transport project alternatives, the health of Pasig River, visual impacts of the expressway, and conflicts with Pasig River Ferry System operations, among others (**Table 3**).

Engr. George Silvederio of EMB discussed the Next Steps in the EIA Process.

The Closing Remarks were led by Engr. Joel Polintan. The Public Scoping program officially ended at 10:47 AM.

Filipino was the primary dialect used during the activity and complementing this was English as the secondary language used. Visual presentations were utilized to aid in the presentations and discussions. There were no negative incidences and the general atmosphere throughout the activity was cordial and warm.

PROGRAM OF ACTIVITIES	PERSON RESPONSIBLE
Registration	RHR Consulting Services, Inc.
Invocation	RHR Consulting Services, Inc.
National Anthem	RHR Consulting Services, Inc.
Opening Remarks	Engr. Edgar Doña, SMC Infrastructure
Acknowledgment of Participants	Engr. Joel G. Polintan, EMB Central Office
EIA Process and Objectives of Public Scoping	Engr. Joel G. Polintan, EMB Central Office

Table 2. Program of the Public Scoping

PROGRAM OF ACTIVITIES	PERSON RESPONSIBLE
Presentation on the description of the Project	Engr. Edgar Doña, SMC Infrastructure
Open Forum	Engr. Joel G. Polintan, EMB Central Office
Recapitulation of issues raised and the proponent's	Engr. Joel G. Polintan, EMB Central Office
response	
Next Steps on EIA Process	Engr. George M. Silvederio, EMB Central Office
Closing Remarks	Engr. Joel G. Polintan, EMB Central Office

3 ISSUES AND CONCERNS RAISED

There were more than 30 issues, concerns, and recommendations raised by 17 stakeholders which were answered and acknowledged by the proponent and are summarized in the table below.

NAME, POSITION, ORGANIZATION	ISSUES/CONCERNS	RESPONSE
Mr. Robert Siy	Requested EMB to schedule a follow up consultation for	Engr. Politan of EMB Central Office
Co-Convenor,	other stakeholders who are not able to attend the scoping	EMB has followed the DENR Administrative Order 2017-15. Due to
Move As One Coalition	meeting.	the unexpected number of attendees, the allowable limit of Zoom
		has been exceeded. Those not able to attend may write a letter to
		EMB about their issues and concerns.
	Requested for the assessment to cover three types of	Engr. Edgar Doña of SMC Infrastructure
	impacts: One is on the impact on livability and economic	These issues were considered and understood by SMC. However,
	potential and attractiveness on communities affected by the	at status quo, heavy traffic still exists. This project is supposed to
	project. The urban blight from elevated expressway and its	alleviate traffic. These issues can be addressed in a way to still
	impact on economic potential and image should be	benefit the environment and heighboring areas. There are some
	considered. He clied a few examples where initiastructures	SMC Infrastructure will consider Mr. Siv's comments
	on the Mobility Impact and if the project will accommodate	Since initiastructure will consider wit. Sty's comments.
	motorists only. If yes, it will only encourage the use of private	Atty Melissa Encanto-Tagarda of SMC
	vehicles within the dense cities of Metro Manila instead of	Asked the body to consider the benefits that will be derived from
	promoting public transport such as walking, cvcling, etc.	PAREX. In the 2018 traffic study, 3.5 billion pesos was lost in
	Third, on Health and Environmental Impacts such as	opportunities. Motorists lost 257 hours of traffic instead of doing
	pollution from the vehicles that will use the expressway.	something else. Although the construction of the project may cause
		traffic, potential benefits such as revenues and jobs generated
		should also be recognized.
		Engr. Politan of EMB Central Office
		You may send your manifestations to EMB.
Mr. Jose Reynaldo Lunas,	Since there will be dredging activities, the daily operations	Engr. Edgar Doña of SMC Infrastructure
Planning Officer,	of the Pasig River Ferry Service traversing Pasig River from	We would like to coordinate with MMDA during the detailed
Metropolitan Manila	Napindan to Escolta, Manila may be affected.	engineering design. Once the PAREX is operational, the proponent
Development Authority		is compelled to maintain sections affected by the project just like in
(MMDA)		I ullahan River which is being cleaned up by the proponent in
		partnership with DENR. The proponent will institute safety
		measures.

Table 3. Issues and concerns raised during the Open Forum

NAME, POSITION, ORGANIZATION	ISSUES/CONCERNS	RESPONSE
	How will SMC go about the right-of-way acquisition? Where will the dumpsite for the dredged materials be located?	<i>Engr. Edgar Doña of SMC Infrastructure</i> Once the project is approved, we can easily mobilize the equipment. We would like to sit down with MMDA and other stakeholders regarding the project.
	Where is the location of the posts? There may be potential conflicts with the proposed additional stations along the Pasig River. We were about to send a letter to Atty. Formosa as invitation for the project to be presented to MMDA to identify potential risks and conflicts that we can resolve even before project design.	Engr. Edgar Doña of SMC Infrastructure Noted.
Frisco San Juan Jr., USEC, Metropolitan Manila Development Authority (MMDA)	Will the expressway be open to public buses? Since the public buses will be composed of city buses, the DOTr should also be informed about the project details.	<i>Engr. Edgar Doña of SMC Infrastructure</i> The expressway will be open to public buses which are classified as Class 2 vehicles.
Mr. David D'Angelo, President, Green Party of the Philippines	Why not propose a road for public/mass transport only, with proper cycling lanes, pedestrian lanes, etc.? Dredging will create a big impact on the river itself. Why not improve the ferry system? Also, it is not the duty of SMC to clean up the river but of the government. The main problem in Metro Manila is that the mass transport is poor.	<i>Engr. Edgar Doña of SMC Infrastructure</i> We have a proposal dedicated to mass or bus transport. This project is just a part of a menu of solutions to city traffic.
Mr. John Sevilla, Member, Move as One Coalition	Pasig River is one of kind in terms of its role in the culture and history of Metro Manila. The project will affect the view and beauty of the open spaces. Maybe, the project can be relocated to another location?	<i>Engr. Edgar Doña of SMC Infrastructure</i> These are one of the many considerations during the feasibility stage. On the visual impacts, we will consider it. As of now, the economy and environment will benefit more from the alignment on the Pasig River.
	It is the government's role to clean up the river with or without the project.	<i>Engr. Edgar Doña of SMC Infrastructure</i> This is noted. This is only the first of the series of consultations to be made for the project.

NAME, POSITION,	ISSUES/CONCERNS	RESPONSE
URGANIZATION		Atty Melissa Encanto-Tagarda of SMC
		Although it is not the responsibility of SMC, we already started the
		massive clean-up of the river. SMC aims to dredge 630,000 tons of
		wastes from the river every year. We think it's part of the company's
		responsibility to address the environmental issues. It is every
		consider all your comments as it is the purpose of this meeting
	Requested DENR and other government agencies to	Noted by Engr. Joel Polintan of EMB Central Office
	include NCAA and other related agencies in the succeeding	, , ,
	meetings.	
	The data discussed by Move As One Coalition members are	Noted by Engr. Joel Polintan of EMB Central Office
	available on the organization's Facebook Page for use as a	
Mr. Richard Penaflor	What is the width of PAREX2	Engr. Edgar Doña of SMC Infrastructure
former KBPIP and PRRC		Of the 50 meters of the width of Pasig River, typical piles of around
River Warrior		one meter each will be installed along the river, hence, will not
		obstruct the flow of water along the Pasig River. If we dredge the
		river continuously, the carrying capacity of the river will increase.
		Clarification by Engr. Doña on the one-meter comment: the exact
		measurements of the posts will be subjected to detailed engineering
		design and in the succeeding sessions.
	There are many alternatives aside from the expressway	Noted by Engr. Edgar Doña of SMC Infrastructure.
	such as the estero de paco clean-up in partnership with the	
	private sectors. Maybe we can also adapt this to Pasig River	
	and C6	
Mr. Justin Tan,	We would like to echo the sentiments of the other	Engr. Edgar Doña of SMC Infrastructure
AO IV,	participants if the project is indeed needed. From the project	This is the purpose of Public Scoping. The concerns raised were
San Juan City Planning	description, the impacts areas covered by the project only	noted and will be considered in the detailed designs and studies.
and Development Office	include the Pasig River. The river is interconnected with	

NAME, POSITION, ORGANIZATION	ISSUES/CONCERNS	RESPONSE
Ar. Leandro Poco, PIEP, ICOMOS, UAP, PIA, Private Sector	 other major rivers such as Marikina, San Juan, and other tributaries. We would like to request that these tributaries connected to the Pasig River be part of the study. Also please consider light and noise pollution from streetlights and moving vehicles as impacts of the project. Requested for the following to be considered and included in the assessments/studies: The health impact assessment on users and people from the ground level who are most affected by the pollution 	<i>Engr. Edgar Doña of SMC Infrastructure</i> This is what this session is all about, to hear the concerns of the public. There will be technical scoping and public hearing incorporating such concerns.
	 and the prospect expressway cutting through their neighborhood Comprehensive study analyzing induced demand per LGU. It will create downstream effects on each LGU. Each LGU should be properly apprised of these effects. Clear accounting of all the footprints of land parcels that are being or currently acquired by SMC that will also benefit from the PAREX. We should look not only at the private interests of the SMC because they also have parcels along the river that will benefit from the expressway Provision of diagrams and illustrations showing the 	
Ar. Kenneth Tua Policy Guidance	 effects on ground level so the sentiments of the people on ground should also be properly documented to create a fully formed impact assessment to document all the externalities that will be passed on to the public to determine the costs we have to shoulder from this private initiative. In terms of the heritage and cultural properties and its people, besides the subsequent deleterious effects that may 	<i>Engr. Edgar Doña of SMC Infrastructure</i> All of the comments will be considered in the next technical sessions.
Manager, SDGsWG - ICOMOS Philippines, and	consist of: visual disruption, pollution, heat & vibration, and/or urban heat island effect to such cultural heritage. It	

NAME, POSITION, ORGANIZATION	ISSUES/CONCERNS	RESPONSE
previous Project	will diminish the Outstanding Universal Values (OUV) of all	
Development Officer at	assets and this includes weakening the integrity and	
OP - Pasig River	authenticity of the Pasig River (and other rivers or channels	
Rehabilitation	included).	
Commission (PRRC)		
Mr. Enrico Ferre	This is in connection with the MMDA's earlier comment. The	Engr. Edgar Doña of SMC Infrastructure
Chief Transportation	construction of 21 ferry stations along the river is proposed	This is noted.
Development Officer,	to NEDA. Potential conflicts may arise with the project. DOTr	
DOTr	would like to request similar meeting about the Project in the	
	future.	
Mr. Ken Abante	We study the use of public funds. From the budget of Public	Engr. Edgar Doña of SMC Infrastructure
Member/Representative	Works since 2010, 2.8Trillion pesos were allotted for road	What has been done is focus on the supply side of the solution.
Citizens Budget Tracker	infrastructure for private vehicles, with 99% road widening	Unfortunately, we are not doing enough on the demand side. It will
	and construction, traffic became heavier. Studies suggest	only be solved on a more comprehensive approach. We are aware
	that the PAREX is not a solution but a problem that will not	that the project will induce more trips. Giving focus on the demand
	solve the intended concerns on traffic, health of the river	side will bring an equilibrium balance between supply and demand.
	ecosystem, and environment. The liabilities lie on the	Road capacity cannot catch up with the volume of demand. Why?
	proponent and regulatory bodies.	Because we are not doing anything on the demand side. Let's look
		at the solutions more comprehensively, not just from the government
		but also everyone.
Mr. J Corpuz	PM2 levels in Manila are thrice the acceptable levels of air	Engr. Edgar Doña of SMC Infrastructure
(organization not	pollution already. Why propose an expressway that will	This is noted.
indicated)	contribute more to the pollution in Manila?	
Mr. Joselito Luna,	Are the engineering baseline studies have been done to	Engr. Edgar Doña of SMC Infrastructure
founder and principal,	address some of the issues expressed and whether these	The proposed expressway is a result of several studies done in the
JLPD (private sector)	will be presented to the public?	past, including those from DPWH. We did our own surveys but will
		be discussed more later on during the detailed engineering design.
	What was the process in awarding the project to SMC? Is it	Engr. Edgar Doña of SMC Infrastructure
	the result of a proposal or part of a comprehensive mobility	The project is a joint venture with the PNCC which is a government
	program undertaken by the government?	agency. This project emanates from the rights of the PNCC on the

NAME, POSITION, ORGANIZATION	ISSUES/CONCERNS	RESPONSE
		franchise to create expressways along Metro Manila. It has
		undergone a review, selection, and approval process by the PNCC.
	Will the award results and studies be made public in the	Engr. Joel Polintan of EMB Central Office
	future?	The EIA report will be posted on EMB website.
		Engr. Edgar Doña of SMC Infrastructure
		All of the information is embedded in the review process of the Toll
		Regulatory Board. The information is under the purview of the said
		agency.
Ms. Bea Dolores,	Heritage impact assessment should be considered in the	Engr. Edgar Doña of SMC Infrastructure
Member/Representative, Renacimiento Manila	study.	This is noted.
	The shadow of the expressway will impede the growth of	Engr. Edgar Doña of SMC Infrastructure
	good bacteria that will improve the water quality of Pasig	The width of the expressway will only require 12 meters plus some
	River, affecting the health of the river ecosystem.	clearances. May we ask what percentage of the road width should
		impede the growth of good bacteria so SMC will consider it in the
		designs? Based on current designs, the width of the expressway will
		not cover the entirety of the Pasig River.
Ms. Dinna Louise C.	Please share good examples or models to follow so we can	Engr. Edgar Doña of SMC Infrastructure
Dayao,	read and learn from them. So far, everything we have read	This is noted.
independent journalist	points out to not follow the footsteps of these cities.	
	Congestion is not a problem but is a symptom of lack of mobility.	
Mr. Kevin Skinker,	What is the anticipated use or lifespan of the project? Other	Engr. Edgar Doña of SMC Infrastructure
Member/Representative	countries are converting their infrastructure into a more	The concession period being proposed is for 30 years. Afterwards,
Tambay Cycling Club	environmental approach.	the project will be subjected to the decision of regulatory parties.
		Atty. Melissa Encanto-Tagarda of SMC
		This will depend on the government after 30 years. The road will still
		be there but will depend on government approval.

NAME, POSITION, ORGANIZATION	ISSUES/CONCERNS	RESPONSE
	Dredging will not help much. Please take note the health and	Engr. Edgar Doña of SMC Infrastructure
	pollution not just cleaning the river.	This is noted.
Mr. Joven Jacolbia,	The east-west corridor primarily experiences public	Atty. Melissa Encanto-Tagarda of SMC
Member/Representative,	transportation traffic. Will this project really solve the traffic	We have several different modes not just the projects catering to
UP One Earth	problems given the issues on public transportation and	private transport. We have significant investments catering to mass
	mobility problems? Why not invest on public transport	transportation.
	instead?	
		Engr. Edgar Doña of SMC Infrastructure
		We should look on a more comprehensive network basis. This will
		not only solve east-west connectivity, but other connections within
		the network. For example, if a segment has heavy traffic, the driver
		will find another route then eventually, all segments of the network
		will achieve equilibrium flow. We cannot address all the segments in
		Metro Manila. This is not the only one. This will be just one of the
		many in the future, including mass transit.
	Hope at this stage we can provide details as early as now to	Engr. Edgar Doña of SMC Infrastructure
	address concerns.	This is noted.

4 PROPOSED DESIGN OF PUBLIC PARTICIPATION

4.1 Review of Secondary Information

All secondary data from the concerned LGUs and other relevant agencies will be collected to accurately assess the issues raised by stakeholders, as well as to provide a background on the socio-economic situation of the stakeholder communities. This shall include, but will not be limited to the following:

- City Profiles
- City Profile and Survey;
- City Socio-economic and Health Profile
- National Statistics Office
- Comprehensive Land Use Plans
- Provincial Physical Framework Plan
- Ecological Profile
- Other pertinent documents

4.2 Perception Survey

A perception survey will be conducted to determine the stakeholder's awareness and perception of the project. The survey will involve questions about the respondents' demographic profile, socio-economic profile, perception of the current state of the environment, knowledge about the project, and perceived opportunities, issues, and concerns about the project. The sample of the survey will be determined based on the technical scoping requirement. The focus will be given to stakeholders directly affected by the project.

ANNEXES

- **ANNEX A SCREENSHOTS DURING THE PUBLIC SCOPING**
- ANNEX B CHAT LOG SHOWING PROOF OF ATTENDANCE AND COMMENTS RAISED
- **ANNEX C RECEIVED INVITATION LETTERS**
- **ANNEX D PRESENTATION MATERIALS**

PS ANNEX A

Screenshots during the Public Scoping





Figure 1. Registration of Participants



Figure 2. Invocation and singing of the National Anthem



Figure 3. Opening Remarks by Engr. Edgar Doña



Figure 4. EIA processes being discussed by Engr. Joel Polintan of EMB Central Office



Figure 5. Engr. Edgar Doña discussing the Project Description



Figure 6. Presentation of Next Steps/Way Forward in the EIA Process



Figure 2. Stakeholder representatives raising their issues and concerns during Open Forum

PS ANNEX B

Chat Log Showing Proof of Attendance and Comments Raised

07:50:11 From John Federick Mejia : Ar. John Federick Mejia, Architect, Private Practice

07:50:33 From Kevin Skinker : Kevin Skinker, Tambay Cycling Hub, Resident of Brgy Pineda Pasig near river.

o7:51:28 From RHR Kristine : Good morning! Kindly state your name, position, and o ce/organization for our Public Scoping attendance. For Example: Juan Dela Cruz, Research Assistant, Department of Interior and Local Government.

o7:53:35 From RHR Kristine : Good morning! Kindly state your name, position, and o ce/organization for our Public Scoping attendance. For Example: Juan Dela Cruz, Research Assistant, Department of Interior and Local Government. Thank you!

07:59:55 From Bernardo Ramolete : good morning evry1, engr bernardo Ramolete po, 2nd district engr, LGU taguig city.

o8:oo:31 From Adamson U - Engr Virgilio Lomotan : Engr. Virgilio Leoncio B. Lomotan, Director, PFGSO, Adamson University

o8:oo:39 From rcsantos : Good Morning, Rodel C. Santos, Technical Operations Group Head, Century Limitless Corporation

o8:01:05 From RHR- EIA Preparer : Good morning. Please rename your Zoom Name and Follow this format: O ce/Organization-Full name.

Also for our attendance, please state your Name, Position, and O ce or Organization. Example: Juan Dela Cruz, DMO II, DILG

o8:o3:o3 From Pat Cabredo : Good morning! Pat Cabredo, public transport advocate

o8:o3:23 From CG PO2 Lanny Jon Peningeo : good morning mam sir this is CG PO2 Lanny Jon Peningeo of Coast Guard Station Pasig, POIC Maritime Safety Services O ce

o8:o3:54 From Deo Quidato & Jazy Jongco - Iglesia Ni Cristo : Deio Quidato & Jazy Jongco - Iglesia Ni Cristo

o8:o7:11 From EIA Preparer-RHR : Good morning. Please rename your Zoom Name and Follow this format: O ce/Organization-Full name.

Also for our public scoping attendance, please state your Name, Position, and O ce or Organization. Example: Juan Dela Cruz, DMO II, DILG

o8:o7:14 From Mandaluyong City Engineering - Engr Jhay Teclim : Good morning! Engr Jhay Teclim, Resident Engineer, LGU Mandaluyong City Engineering

o8:o7:33 From RHR Kristine Gillado : Good morning. Please rename your Zoom Name and Follow this format: O ce/Organization-Full name.

Also for our public scoping attendance, please state your Name, Position, and O ce or Organization. Example: Juan Dela Cruz, DMO II, DILG

o8:o8:o5 From PUP_Arlheth Delos Angeles : Arlheth Delos Angeles, Director, PUP Manila

08:08:32 From CENRO San Juan_Kim Ruizo : Elyrose Kim Ruizo, PDO II, CENRO San Juan

o8:o9:16 From TRB : Good morning everyone. Engr. Efren U. Rabot - Engineer III; Abigail A. Ga ud - PURO II; Christian Joseph Q. Clavel - Engineering Assistant, Toll Regulatory Board.

o8:09:48 From Jim Fernando : Jimmy Fernando, Chief, Center for Environmental Studiea, PUP Manila

o8:09:48 From JLPD-Joselito Luna : Joselito Luna, founder and principal, JLPD (private sector)

o8:09:54 From Dinna Dayao : Dinna Louise C. Dayao, independent journalist

o8:11:49 From MMDA Raquel de Jesus : MMDA Raquel de Jesus

o8:12:20 From DOTr_Senior TDO - Julius Cristobal : Good morning po http://www.eia.emb.gov.ph/ "This site can't be reached"

o8:12:42 From reach_pena or@yahoo.com : Signing in po, Reach Pena or former KBPIP and PRRC

River Warrior

o8:13:20 From Dinna Dayao : Magandang umaga po!

o8:13:21 From Anton Siy - Pasig : good morning!

o8:13:37 From Iris T., advocate of public transport : Good morning!

o8:13:49 From PIEP NCR, Director, Arch/EnP/RMP Relly E Castillo : Umagang maganda po

o8:13:51 From reach_pena or@yahoo.com : good morning po!

o8:14:24 From EIA Preparer-RHR : Good morning. Please rename your Zoom Name and Follow this

format: O ce/Organization-Full name.

Also for our public scoping attendance, please state your Name, Position, and O ce or Organization. Example: Juan Dela Cruz, DMO II, DILG

08:15:08 From Justin Tan, UAP, PIEP : Justin Tan, AO IV, San Juan CPDO and Policy & Advocacy Committee, PIEP NCR Chapter

o8:15:46 From Dinna Dayao : Baka po pwedeng magsimula na tayo? 8:15 na po. :)

o8:15:47 From Keisha Mayuga - AltMobility : Keisha Mayuga, AltMobility PH

08:16:10 From RHR Kristine Gillado : Good morning. Please rename your Zoom Name and Follow this

format: O ce/Organization-Full name.

Also for our public scoping attendance, please state your Name, Position, and O ce or Organization. Example: Juan Dela Cruz, DMO II, DILG

o8:16:11 From louie sioson : Goodmorning! Louie Sioson, SMC Infrastructure

o8:16:12 From Renacimiento Manila - Bea Dolores : Beatrice Ann Dolores, Co-founder & VP:

Renacimiento Manila, Youth Cluster Coordinator: The Climate Reality Project Ph

o8:18:00 From LLDA- Marilou G. Directo-Cebujano : Marilou G. Directo-Cebujano, SSRS-LLDA

08:18:12 From Pasig Transport - Anton Siy : Anton Siy, Head of Transport, Pasig City

08:18:29 From DOTr_Senior TDO - Julius Cristobal : Julius Zeasar Cristobal, WTPD, DOTr

o8:19:30 From Green Party of the Philippines - David D'Angelo (President) : David D'Angelo,

President, GPP Kalikasan Muna (Green Party of the Philippines) www.greenparty.ph

08:22:34 From Infra Cluster Tag - Gerome San Pedro : Engr. Gerome Michael R. San Pedro / Infrastructure Cluster Representative / Taguig LGU

08:22:50 From Jennet Razo : Mabuhay! Jennet E. Razo, Planetary Health Advocate; Professor, Saint Louis University, Baguio City

08:23:55 From Dinna Dayao : Clear po

08:23:58 From PIEP NCR, Director, Arch/EnP/RMP Relly E Castillo : loud andc clear po

o8:25:02 From EIA Preparer-RHR : Good morning. Please rename your Zoom Name and Follow this

format: O ce/Organization-Full name.

Also for our public scoping attendance, please state your Name, Position, and O ce or Organization. Example: Juan Dela Cruz, DMO II, DILG

o8:27:06 From RHR - Henry James Pollisco Botengan : Magandang Umaga po. Henry James P. Botengan from RHR Consulting Services, Inc.

o8:27:30 From PFGSO/Adamson University - Jay Jordan Aranzado : Good morning po!

o8:28:03 From Gawad Kalinga - Dan Bercasio : Dan Bercasio, Executive Director, Gawad Kalinga

08:28:10 From EIA Preparer-RHR : Good morning, This is For. Jori Lentijas, from RHR Consulting

Services, Inc., Senior Research Associate.

08:28:15 From PFGSO/Adamson University - Jay Jordan Aranzado : Jay Jordan Aranzado from PFGSO, Adamson University

08:29:12 From PFGSO/Adamson University - Jay Jordan Aranzado : Jay Jordan Aranzado, Head building

maintenance and operation from PFGSO, Adamson University From Melanie Grace Villanueva, EnP, Dlsu Manila : Good morning po! 08:30:08 08:30:14 From mario hernandez, bike enthusiast : skip the acknowledgement pls 08:30:38 From Kenneth Tua : Agreed 08:31:32 From Nico Rocha, Tondo Transport Assoc : Nico Rocha, Tondo Transport Assoc. excited po kami sa project na ito. magbibigay ito ng ginhawa sa amin mga riders sa tondo From Denmark ace Tamawa : yes 08:32:31 08:36:43 From PIEP NCR Chapter, Arch/EnP/RMP Relly E Castillo : hoping to get a copy of presentations .Salamat po. From Kevin Skinker - Tambay Cycling Hub : I hope there will be more than one brief public 08:39:02 hearing po From Renacimiento Manila - Bea Dolores : It'll be a series daw po, Sir Kevin. Good morning! 08:39:34 08:40:07 From Pasig Transport - Anton Siy : Sir, FYI na rin po there are many members of the public who are trying to enter the zoom, but cannot due to the zoom room limit 08:40:21 From SMHC - LARRY PANGILINAN : Larry Pangilinan. Tra c Engineer, SMHC 08:41:44 From EMB CO-Joel Polintan : Apologies po for the the limited number of participants for this Public Scoping. From Ken Abante - Citizens Budget Tracker : Could this video be livestreamed / uploaded po, 08:42:04 Sir? From Pasig Transport - Anton Siy : Yes please, livestreaming on facebook could allow others to 08:42:31 at least listen to the presentation From Iris T., advocate of public transport : Good idea! Maybe we can also live stream the 08:42:47 brie ng on Facebook/YT? 08:44:04 From Leandro Poco-PIEP, ICOMOS, UAP, PIA, Private Sector : is there a plan showing the proposed alignments/segments? better to appreciate it as an illustration 08:45:14 From Robert Siy, Co-Convenor, MoveAsOne : May we know if you are limiting entry to this consultation? Some additional participants are trying to enter the meeting but are being denied entry. From San Juan CPDO - Justin Tan, UAP, PIEP : Probably a limitation of their Zoom 08:45:53 subscription. 08:46:04 From EnP Marion Tinio : Sir Robert, may be the limit of the Zoom account From EMB CO-Joel Polintan : Regarding livestream in FB.coordinate ko po ito to be shared in 08:46:28 EMB CO FB Account o8:46:50 From EIA Preparer-RHR : Good morning, as of 8:45 AM. No one is on the waiting room. We currently have 100 participants. I am admitting everyone as soon as they approach the waiting room. From Robert Siy, Co-Convenor, MoveAsOne : In that case, the consultant should organize a 08:47:39 follow-up meeting. Otherwise, it could be argued that some stakeholders were denied their right to participate in this consultation. o8:49:48 From EMB CO-Joel Polintan : It will be a continuous consultation din po since they will conduct baseline study during the preparation of the EIA study 08:51:39 From Iris T., advocate of public transport : To the host - your Zoom subscription has a max of 100 participants. There was a pop up warning from Zoom stating so. Suggest you get a better subscription plan or at least livestream the event. Even if you host multiple consultations, the fact remains that other stakeholders were denied their right to join THIS activity. From EIA Preparer-RHR : Good morning Everyone. For those asking for the Presentations, 08:52:37 DENR-EMB will be releasing the Documentation Report of this Public Scoping. Attachment will include the Presentations used today. Kindly send us your email so we can share with you the link of DENR-EMB website where they will upload the Public Scoping Report.

o8:54:07 From Dinna Dayao, independent journalist : dinnadayao@gmail.com

o8:54:17 From CPGI - Ar. Anna Castillo : Pls. send me a copy of all presentation materials: annalea.castillo@century-properties.com

o8:54:20 From Nico Rocha, Tondo Transport Assoc : Malapit sa barangay naming yung sa R10. napakadumi ng ilog dyan malapit sa Brgy 101. sana malinis niyo yun.. hindi nabibigyan pansin. sana san Miguel ang maglinis

madami natulungan yung better world tondo ng san Miguel sa tapat ng happyland tondo. Sana ganun din sa project na to, wag pabayaan ang ilog at ang mga nakatira na malapit sa project.

o8:56:07 From Green Party of the Philippines - David D'Angelo, President, : Hindi ba it would be better aside from thsi one to really create a Public Mass Transport only road in Metro Manila? This will gretaly decongest tra c kasi we all have roads that are mixed and most of these additional infra bene ts private transport.

o8:56:21 From Dinna Dayao, independent journalist : Question: Who will bene t the most from using the proposed project?

Eight out of 10 people who live in Metro Manila take public transportation. Will the proposed project bene t them? Or will it serve the needs of the few people who own and drive cars?

o8:56:24 From PUP Jimmy Fernando : please send a copy of the public scoping report to ces@pup.edu.ph

o8:56:41 From KBPIP /PRRC - River Warrior Richard Pena or : Pasig River is the lifeline of our nation! Ilan po ng total width ng Pasig River ang sasakupin ng PAREx?!

o8:57:14 From UPD (Student) - Angel Druja : How will PAREX a ect the already existing Pasig River Ferry System? Will that be abolished and replaced by PAREX?

o8:57:59 From Kenneth Tua : I agree Mr. Robert Siy

o8:58:10 From Lorraine C. Resident of an area near Ilog Pasi : Question po—and pardon me as I have only a vague idea of how infra development processes work—kung ngayon pa lang po tayo nagkakaroon ng open forum, bakit po kahit last year pa lang may announcements at reports na po na sisimulan na ang project?

o8:58:15 From Renacimiento Manila - Bea Dolores : Looking forward to a livestream of this series from the DENR FB page.

08:58:19 From Ken Abante - Citizens Budget Tracker : Agree po, Sir Robie!

o8:59:13 From Renacimiento Manila - Bea Dolores : It shows how much people are invested and concerned about this project po.

o8:59:24 From Iris T., advocate of public transport : Agree with Sir Robert Siy. I only learned about this scoping activity midnight last night. Hope the organizers could also disseminate notice through social media for better and wider reach especially given the scope of the project

o8:59:36 From Kenneth Tua : Yes, it should be open to the Public, the bigger the reach.

o8:59:45 From Veronica Villanueva, EnP, Dlsu Manila : Very interesting project, I hope e orts will also be placed in the Pasig River clean up.

09:00:42 From Dinna Dayao, independent journalist : Maganda po kung may schedule na ang susunod na meetings. And please indicate an end time po. Salamat po!

09:04:24 From Nico Rocha, Tondo Transport Assoc : Photobomb? Nakita niyo po ba basura sa Pasig river? mas gusto ko na ang magandang highway kesa basura sa ilog. sabi ng san Miguel, lilinisin naman nila ang pasig river. paki una po yung tondo area sa paglinis.

09:04:48 From bmb_winnievir balilia : kindly expand zoom capacity l, madami po ang gusto magparticipate dito po sa consultation. salamat po

09:04:58 From Kevin Skinker - Tambay Cycling Hub : I agree with Mr. Siy

09:05:26 From Kenneth Tua : In terms of the heritage and cultural properties and its people, besides the subsequent deleterious e ects that may consist of: visual disruption, pollution, heat & vibration, and/or urban heat island e ect to such cultural heritage. It will diminish the Outstanding Universal Values (OUV) of all assets and this includes weakening the integrity and authenticity of the Pasig River (and other rivers or channels included).

o9:o6:43 From Leandro Poco-PIEP, ICOMOS, UAP, PIA, Private Sector : Puwede naman linisin ang mga estero/Ilog Pasig kahit walang expressway. Hindi yun trabaho ng SMC.

09:07:04 From Lorraine C. Resident of an area near Ilog Pasi : Mr(?) Nico, naiintindihan ko po yung sinasabi ninyo, bilang sa tapat ako ng Ilog Pasig nakatira. Pero tingin ko po pwede namang linisin ang Pasig River nang hindi naka-angkla sa pagtayo nitong expressway.

o9:08:37 From Leandro Poco-PIEP, ICOMOS, UAP, PIA, Private Sector : has there been attempt to model/compute the e ects of induced demand on the surrounding communities.

o9:08:39 From Pasig OCM-Bernice Mendoza : Can you share the market study to show demand po for the east-west connector? Why not invest in public transport using the river itself as a "highway"? o9:08:41 From Lorraine C. Resident of an area near Ilog Pasi : Pre-pandemic, sobrang lala ng tra c sa JP Rizal hindi ako makahinga at talagang nag-iipon ang dust sa bahay namin. I can imagine how much worse it would get not only for me and my family, but for entire communities this will a ect.

o9:09:04 From EIA Preparer-RHR : Regarding the Zoom Subscription, Apologies for that since we are not aware of the maximum or limit on participants. Rest assured that we will improve our consultation platforms next time. Thank you for calling this out.

09:09:05 From UP One Earth - Joven Jacolbia (he/him) : If SMC is prioritizing public transport, why not push through with MRT-4 (Taytay to Sta. Mesa) already in SMC's pipeline? Most of the tracin the vicinity of the project is actually public transport, so it will not address the tracin complement and, but instead worsen it especially in interchanges which have only have few capacity. Wala naman benets as a resident near Metro Manila Skyway. Priorities lang naman usapan poin the end, mobility poba talaga? 09:09:53 From Kevin Skinker - Tambay Cycling Hub : Even the SMC rep just said that "building more roads does bring more tracing if that does not sound like an environmental disaster then I don't know what is.

09:10:07 From Lorraine C. Resident of an area near Ilog Pasi : Exactly.

09:10:42 From Move as One Coalition - John Sevilla : This project will INCREASE tra c, not decrease it.

09:10:49 From Kevin Skinker - Tambay Cycling Hub : only 12% of our population even have cars.

09:10:56 From Nico Rocha, Tondo Transport Assoc : ms Lorraine, opo naiintindihan ko po. Taga brgy 101 po ako, sa tenement. Nakita niyo na po ba yung ilog pasig mula sa barangay namin? kasi madumi po talaga. kadalasan po kasi kapag pumasok ang private sector mas ma gumaganda ang nakapaligid dito 09:11:07 From Move as One Coalition - John Sevilla : More highways= more cars = more tra c.

og:11:34 From UPD (Student) - Angel Druja : There are more commuters po that private car owners.

The expressway will only bene t private car owners.

09:11:43 From AA+ Consultancy, AB Agosto, ENP : What is the projection of the proponent in 10 to 20 years of tra c?

09:11:43 From Lorraine C. Resident of an area near Ilog Pasi : Naku at ayun po ang problema, Sir Nico. Sana po LGU ang sumasalo nito at hindi tayo laging naka-asa sa private sector.

09:11:45 From Ken Abante - Citizens Budget Tracker : Sa iba hong expressway at highways na ipinatayo na inuuna lamang ang mayayaman lamang na may kotse, lumala lang ho ang trapik.

May pag-aaral ho na kahit P2.8 TRILYON ang binudget ng pamahalaan nitong 10 taong nakaraan para sa paggawa ng mga daan at highway, LUMALA pa ho ang trapik.

Kumonti ang public transport, dumami ang kotse, lumala ang tra c sa daan. Induced demand ho ang tawag dito.

09:12:07 From Robert Siy, Co-Convenor, MoveAsOne : Yes, thank you Sir Joel

09:12:18 From EnP Marion Tinio : with due respect to the proponents, please see the example of Skyway Stage 3. you don't need to look further.

o9:12:33 From Dinna Dayao, independent journalist : Engr. Dona, please provide more information on the good models from Japan and Singapore.

09:12:54 From mario hernandez, bike enthusiast : ano kaya itsure ng slex kung hindi inayos? musta kaya ang mobility

o9:13:14 From J Corpus : Why are you ruining the ecosystem of the Pasig River? Why do we need more highways when there are better solutions such as mass transportation?

09:14:08 From Leandro Poco-PIEP, ICOMOS, UAP, PIA, Private Sector : what are the expected outcomes from this EIA scoping activity?

09:15:20 From Kevin Skinker - Tambay Cycling Hub : Can you also please include a public health study regarding the e ect of pollution on populations near expressways?

09:16:12 From Lorraine C. Resident of an area near Ilog Pasi : I second this (public health study).

o9:17:41 From Dinna Dayao, independent journalist : May I suggest that the MMDA discussion be part of these public scoping meetings?

09:19:16 From San Juan CPDO - Justin Tan, UAP, PIEP : The San Juan and Marikina Rivers should be included in the list of impact areas that will be covered by EIA.

09:19:24 From Kevin Skinker - Tambay Cycling Hub : the Pasig River Ferry allows bikes on board. will the expressway?

09:19:51 From Lorraine C. Resident of an area near Ilog Pasi : As well as the esteros

09:20:21 From Kenneth Tua : hydrodynamics

09:20:38 From Renacimiento Manila - Bea Dolores : Impeding waterways.

09:21:05 From Renacimiento Manila - Bea Dolores : What is the environmental impact assessment?

09:21:25 From PIEP NCR Chapter, Arch/EnP/RMP Relly E Castillo : liliit na ang daluyan ng tubig pag nilagyan pa ng poste ng parex

09:22:25 From Lorraine C. Resident of an area near Ilog Pasi : So you agree Sir that better public transport is what will help ease tra c the best

09:23:05 From Pasig Transport - Anton Siy : Wait, provincial buses cannot even use this as a bypass? 09:26:09 From Ken Abante - Citizens Budget Tracker : Hi Sir Joel, sorry po, wala pong raise-hand feature dito sa ZOOM ko.

09:26:34 From PIEP NCR Chapter, Arch/EnP/RMP Relly E Castillo : sa ibang bansa, binubuhay ang mga ilog, ditto sa atin pinapatay, bakit ba ?

09:27:10 From Kenneth Tua : I agree Sir David D'Angelo

09:28:33 From Nico Rocha, Tondo Transport Assoc : dami po nagsasabi na tataas ang trapik, dadami sasakyan, pollution. parang mas maganda po ata na mag lobby tayo sa LTO o DOTR or ano man agency na sabihin mag limit ng sasakyan, tanggalin ang mga lumang kotse, suportahan ang public buses and vehicles. wag pigilan ang mga infra projects kasi kasama ito sa pag unlad ng bayan, basta dapat siguraduhin na maayos ang mga impact sa kalikasan. Lalo na yung dumi sa pasig river, paki linis na po

09:29:07 From BMB Rowena Bolinas : This is from DENR-BMB. May we request the proponent or the EMB to expand capacity of ZOOM Meetings, especially for Public Scoping and Public Hearings, to enable wider stakeholders participation. Thank you.

09:30:24 From UP One Earth - Joven Jacolbia : May MRT-4 project po (Sta. Mesa to Taytay) na inadopt si SMC almost parallel the project, sana yun na lang push. Hindi naman inclusive ang Pasig River Rehabilitation and PAREX.

09:30:32 From Nico Rocha, Tondo Transport Assoc : Philippine Institute of Environmental Planners

(PIEP) NCR- san po sinabi na pinapatay yung ilog pasig? naku wag naman po sana. dapat natin ito pangalagaan

09:30:42 From Lorraine C. Resident of an area near llog Pasi : To DENR, I hope mayroon pong mga ganitong discussions na announced beforehand para sa ibang mga projects tulad ng bagong subway, ng Bulacan aerotropolis, etc. bago pa po magkaroon ng ribbon cutting o groundbreaking ceremonies.

09:31:23 From EnP Marion Tinio : raise ko po from a friend previously of PRRC, may FS for the Pasig River Ferry System na pwedeng irevisit. Nasa NEDA naman yung winorkout na FS nung 2018-2019.

09:32:07 From Kenneth Tua : Pasig River was once the Venice of Asia, if we add the elevated expressway, it will not be possible anymore to revive the river to its pristine and undisrupted condition.

09:33:02 From PIEP NCR Chapter, Arch/EnP/RMP Relly E Castillo : Hi Sir Nico Rocha, wala po akong nabanggit na Pasig River. Salamat po.

o9:33:53 From Renacimiento Manila - Bea Dolores : What is the Environmental Impact Assessment?o9:34:06 From Kevin Skinker - Tambay Cycling Hub : preach!

09:34:16 From Nico Rocha, Tondo Transport Assoc : nakakatawa naman kayo, kung magsalita kayo napakaganda ng pasig river. san banda? papatayin pa daw. eh matagal ng patay

09:34:31 From Lorraine C. Resident of an area near Ilog Pasi : Sir Nico, sigurado po ako na ang mga nagcocomment dito na may issue sa PAREX ay gusto rin na luminis ang Pasig River. Hindi lang po ito isyu ng mass transport, ng tra c, ng kung sino at hindi ang makakasakay—kundi ang issue rin po ninyo ng basura ng Ilog Pasig, gusto rin po natin lahat masolusyonan, pero hindi po ang expressway ang sagot. 09:34:42 From Kevin Skinker - Tambay Cycling Hub : How will the expressway bene t the environment in the long term?

09:34:45 From Renacimiento Manila - Bea Dolores : Sir Nico, hindi po patay ang Pasig River.

09:35:01 From UP One Earth - Joven Jacolbia : Pasig River is also not that helpless, PRRC has been doing good in the past decade and even received awards for it. Hindi napo savior ang smc

09:35:18 From Green Party of the Philippines - David D'Angelo, President, : It was not dead kaya lang this activity of maintaining and rehabilitating it was cut o I think lalo na ng mawala yung commission. So it is not dead

o9:35:35 From EnP Marion Tinio : to the proponents: why not just to a cleanup then, and not build the expressway?

09:35:55 From Kevin Skinker - Tambay Cycling Hub : Air pollution is a far greater concern regarding building more roads. Especially given the importance of clean air during these COVID times.

09:36:02 From Lorraine C. Resident of an area near Ilog Pasi : I think we should also consider the lived experiences of people who live along the river and its tributaries.

09:36:14 From Kevin Skinker - Tambay Cycling Hub : River cleanup is a distraction.

09:36:59 From Kenneth Tua : PRRC saved it and shes are now in the river although there are still a lot of work to do and this will impede it.

09:37:22 From Kenneth Tua : Together with the concerned LGUs, PRRC made a big e ort.

09:37:24 From J Corpus : PM2 levels in Manila are 3x the acceptable levels of air pollution already! We are choking from the pollution already!!! Why propose a daan that will contribute more to the pollution in Manila!?

09:39:23 From mario hernandez, bike enthusiast : estero de paco ay inayos na uli ng city of manila

o9:39:36 From Kenneth Tua : I agree Mr. Richard Pena or, it was dissolved. I was also a previous PRRC employee. We commend the River Warrior's e orts, the people on-ground.

09:39:45 From Lorraine C. Resident of an area near Ilog Pasi : Sir Nico, tinanggal daw po pala ng presidente yung paglinis ng Ilog Pasig, ng org ni Ms Gina Lopez.

09:40:36 From PIEP NCR Chapter, Arch/EnP/RMP Relly E Castillo : Thank you Sir Richard Pena or 09:41:31 From JLPD-Joselito Luna : Were baseline pre-engineering and environmental studies done (hydrology, air quality, etc) prior to establishing the alignment of PAREX? If so, can these be presented and shared for the information of the public?

09:43:02 From Kevin Skinker - Tambay Cycling Hub : What studies have you done showing the need for more East-West connectivity? Economic? Environmental? Private Cars? Transport of goods? Transport of people?

09:43:21 From PIEP NCR Chapter, Arch/EnP/RMP Relly E Castillo : Sana marevisit yung mga structures o drainage na nagdidischarge directly at indirectly sa Pasig River like waste water, chemicals, oil, POLLutant etc. Thank you po

09:43:25 From Renacimiento Manila - Bea Dolores : Sir, with due respect, the width of the expressway will also be a concern on the water quality of the river due to the blockage of sunlight - worsening bad bacteria & impeding the good bacteria to win over.

09:44:21 From JLPD-Joselito Luna : Was PAREX the result of an unsolicited proposal by SMC or the result of a prior comprehensive government mobility study?

09:46:05 From Bernardo Ramolete : why not utilize the legal easement of PR be used through out its tributary alignment for means of parks greenry, roads and also stablish commercial treatment facilities of tributary creek b4 discharge to its body.

09:47:49 From Lorraine C. Resident of an area near Ilog Pasi : Tama—hindi lang car users ang dapat iniisipan ng bene t nito kundi yung communities along the river.

09:48:39 From Dinna Dayao, independent journalist : Good points, Mr. Poco. Thank you!

09:48:43 From Lorraine C. Resident of an area near Ilog Pasi : Tama po, Sir Leandro.

09:49:12 From NSantamaria UAP PIEP : Also consider impact to historical structures

09:50:04 From Lorraine C. Resident of an area near Ilog Pasi : Napakarami po ng kailangang iconsider hindi lang sasakyan.

09:50:12 From Kenneth Tua : I agree Mr. Leandro

09:50:16 From KBPIP /PRRC - River Warrior Richard Pena or : Medyo hindi po ako con dent sa 1 meter pilote width ng PAREX carrying 8lanes of the PAREX!??

09:50:58 From Lorraine C. Resident of an area near Ilog Pasi : Yes imposible 1 meter

09:53:39 From Move as One Coalition - John Sevilla : Please call on Ken Abante- he's trying to raise his hand but can't on zoom.

09:54:57 From Dinna Dayao, independent journalist : I suggest that the recording of this session, as well as all documents presented today, be provided to all attendees and the general public on social media and on the EMB website.

09:57:12 From Dinna Dayao, independent journalist : Please make all these meetings with MMDA and DOTr open to the public.

09:57:49 From Kevin Skinker - Tambay Cycling Hub : the serenity of the ferry would undoubtedly damaged by an expressway above it. as would the entire river and metro.

09:57:51 From Renacimiento Manila - Bea Dolores : Apart from Environmental Impact Assessment, there is also Heritage Impact Assessment.

Heritage Law (RA 10066) states:

(d)Any government or nongovernment infrastructure project or architectural site development shall include anthropological, archaeological and historical and heritage site conservation concerns in their Environmental Impact Assessment System.

09:59:56 From Iris T., advocate of public transport : Kindly share a transcript of the comments on the chat as well

10:00:28 From Dinna Dayao, independent journalist : Great points, Ken!

10:00:33 From Renacimiento Manila - Bea Dolores : Pasig River is the life and blood of Philippine civilizations. <3

10:00:38 From Liliane Rejante Manahan-ICOMOS HCS : Very good presentation. Thank you!

10:02:44 From Ken Abante - Citizens Budget Tracker : Sir, we're saying demand of private vehicles will also worsen with this expressway.

10:02:48 From Green Party of the Philippines - David D'Angelo, President, : We can actually see the bad e ects of this project pag nakatayo na. I really believe there is no need for PAREX. We just have to maximize our current road system by nding solutions to the root cause of the problem. Or kung meron man it should be not on top of the river but can be running along it.

10:02:49From Ken Abante - Citizens Budget Tracker : Road transport in ation up by 20%10:03:16From Leandro Poco-PIEP, ICOMOS, UAP, PIA, Private Sector : supply never meets demand, ifdemand behaviors and land use are not changed

10:03:18 From Kevin Skinker - Tambay Cycling Hub : if there is has been no study on the demand then why are you building it? for the environment to bene t? no! it's just to earn money! the burden of proof for demand and environmental sustainability is on you!

10:03:56 From EnP Marion Tinio : respectfully to the proponents: 80±% of the Filipinos who use our roads are public commuters. so, if we will address the demand, we should have more mass transit projects. please just support the Pasig Ferry system instead of a road project.

10:04:12 From Green Party of the Philippines - David D'Angelo, President, : Improve public transportation rst. This is long overdue. I admire SMC's project for the mass railway system.

10:04:24 From mario hernandez, bike enthusiast : P2.8 trillion for the whole country?

10:05:15 From Robert Siy, Co-Convenor, MoveAsOne : Supply expansion should promote a shift to walking, cycling and public transport; unfortunately, PAREX encourages a shift in the opposite direction--towards greater motor vehicle use.

10:05:36 From Leandro Poco-PIEP, ICOMOS, UAP, PIA, Private Sector : Agree with Mr. Siy and Mr. Abante

10:06:40 From Ken Abante - Citizens Budget Tracker : Maraming Salamat po sa panahon!

10:08:59 From Leandro Poco-PIEP, ICOMOS, UAP, PIA, Private Sector : good questions Mr. Joel

10:09:34 From Renacimiento Manila - Bea Dolores : "Pasig river is the cradle of civilization of our nation's capital."

10:09:38 From Ken Abante - Citizens Budget Tracker : I'd like to share some of the links to the papers, data, and presentation written on this topic, which formed the basis of my statement a while ago.

We hope San Miguel Corporation and TRB and EMB could also publish all their papers and supporting data when available.

10:11:27 From Ken Abante - Citizens Budget Tracker : Katreena Chang; Kenneth Isaiah Ibasco Abante; Patricia Mariano; John P. Sevilla; Robert Y. Siy Jr; Jedd Carlo F. Ugay. 26 May 2021.

"The Systemic Shortage in Philippine Public Transportation: The Impact of the Infrastructure Flagship Project Pipeline on the Mobility Needs of the Greater Capital Region and Recommendations to Bridge the Gap".

10:11:31 From Ken Abante - Citizens Budget Tracker : http://bit.ly/MoveAsOnePaper_shortage

10:11:35 From Ken Abante - Citizens Budget Tracker : http://bit.ly/MoveAsOneData_shortage

10:11:42 From Ken Abante - Citizens Budget Tracker : http://bit.ly/MoveAsOneSlides_shortage

10:11:49 From Ken Abante - Citizens Budget Tracker : Zy-za Nadine Suzara; Kenneth Isaiah Ibasco Abante; Katreena Chang; Alyssa Encarnacion; Giorgino Naval; Christian John Rojo; John Gabriel Daos;

Jeriesa Osorio; Lexxel Tanganco. 26 May 2021. "Move People, Not Just Cars:Correcting the systemic underfunding in national road-based public transport in the Philippines (2010 - 2021)."

10:11:53 From Ken Abante - Citizens Budget Tracker : http://bit.ly/MoveAsOnePaper_budget

10:11:57 From Ken Abante - Citizens Budget Tracker : http://bit.ly/MoveAsOneData_budget

10:12:01 From Ken Abante - Citizens Budget Tracker : http://bit.ly/MoveAsOneSlides_budget

10:12:40 From Ken Abante - Citizens Budget Tracker : We hope in turn SMC's, EMB's, and TRB's EIA report and the supporting data could be released as the reviews are going, so we could comment and review the research papers.

10:14:20 From Lorraine C. Resident of an area near Ilog Pasi : Will PAREX be constructed along the river near Malacańang Palace? If so, this is a threat to national security, is it not? Ferry passengers have to be cleared and guarded by Coast Guard and are not allowed to take photos of the area. How can you address this with PAREX?

10:16:55 From Robert Siy, Co-Convenor, MoveAsOne : Can we clarify the width? If 6 lanes, 12 meters will be too narrow, assuming minimum of 3.5 to 4 meters per lane?

10:18:05 From KBPIP /PRRC - River Warrior Richard Pena or : PRRC has a comprehensive study and monitoring of Pasig River. In fact, every other month we monitor the environmental parameters like BOD, COD, TSS, Coliform, etc. We can.access it thru Ms. Dayang Bonga.

10:18:24 From Ateneo - Abigail Favis : Is it also possible to add a promenade, bike lane, tree bu er, etc. along the river as part of this project?

10:18:28 From Robert Siy, Co-Convenor, MoveAsOne : Perhaps the answer is 12 meters in each direction, so minimum of 24 meters width?

10:18:46 From Kevin Skinker - Tambay Cycling Hub : what is the anticipated lifespan of PAREX? 50 years of usage? 100 years? 200?

20 years then turned into a linear park?

30 years then restore the Pasig River to its natural state?

10:20:36From PIEP NCR Chapter, Arch/EnP/RMP Relly E Castillo : Ang gand ang Vietnam ngayon10:20:38From Ken Abante - Citizens Budget Tracker : South Korea dismantled their elevated highwayon the Cheonggyecheon Stream, and allowed for the ourishing of nature and people-mobility.

10:20:52From PIEP NCR Chapter, Arch/EnP/RMP Relly E Castillo : ang ganda ng Vietnam ngayon10:21:01From Ken Abante - Citizens Budget Tracker : Koreans regretted building the expressway ontop of Cheonggyecheon Stream.

10:21:03From JLPD-Joselito Luna : Covering 20% of public domain to bene t 12% private car owners10:21:13From KBPIP /PRRC - River Warrior Richard Pena or : Can DENR-EMB benchmark with othercountries having an expressway on top of a river?! Like Nohinbashi Expressway, New Orleans river, etc...10:21:41From Dinna Dayao, independent journalist : Good point, Richard!

10:21:50 From Pasig OCM-Bernice Mendoza : Since this is a JV with PNCC, may we ask what the

contributions of each party will be?

10:22:17 From KBPIP /PRRC - River Warrior Richard Pena or : Thanks po Ma'am Dinna!

10:24:45 From Kevin Skinker - Tambay Cycling Hub : thank you. hopefully it will not be built.

10:24:52 From Ken Abante - Citizens Budget Tracker : As a benchmark, Chonggye Expressway was built in 1968, and after people regretted building it on top of such an important ecosystem Cheonggyecheon Creek and because it WORSENED congestion, the expressway was removed in 2005.

10:26:04 From Ken Abante - Citizens Budget Tracker : The removal of the expressway cooled the city, with almost 3 degree Celsius cooling in the surrounding areas with the restoration of the creek ecosystem, ora, and fauna.

10:27:06 From KBPIP /PRRC - River Warrior Richard Pena or : I am volunteering po to present what KBPIP, PRRC, and the di erent partners have accomplished and the template we did for Pasig River. We have ABSCBN Kapit Bisig para sa Ilog Pasig, River Warriors and River Patrold from PRRC and the Green Party of the Philippines to attend and others can join also.

10:28:32 From Lorraine C. Resident of an area near Ilog Pasi : Hi Joven :(choppy ka.

10:28:33 From Iris T., advocate of public transport : Very choppy po :(

10:28:45 From Ken Abante - Citizens Budget Tracker : Sorry po, Sir Joven, di ko po masyadong narinig.

10:28:46 From Ken Abante - Citizens Budget Tracker : Ayun!

10:28:46 From Lorraine C. Resident of an area near Ilog Pasi : Can you type in your concern instead? 10:28:47 From Kevin Skinker - Tambay Cycling Hub : @SMC, any proposal for building roads will be automatically met with the doubt given that none of your expressways prioritize moving people, not cars, and San Miguel Ave doesn't even have bike lanes. Please allow vehicles other than private cars on all your roads.

10:32:00 From Kevin Skinker - Tambay Cycling Hub : if you answer "money" at least it's truth. we can respect and understand that. but please don't go around touting "river cleanup" and sustainable development and expect us to believe it.

10:35:53 From Nigel Paul Villarete : Is there a NON-COMPETE clause in the proposed concession agreement or joint venture agreement that will prevent any other future development along the Pasig River alignment such as, but not limited to, a public transit corridor, a Pasig River Ferry, an ordinary public road, or similar SUCH infrastructure within the term of the project? if there is, how is the non-compete clause written?

10:35:56 From Robert Siy, Co-Convenor, MoveAsOne : Sad to say, more roads attract more car use eventually leading to worse congestion....and the argument for more roads. Need to end this downward spiral and focus on measures that encourage a shift away from private vehicle use.

10:36:50 From UP One Earth - Joven Jacolbia : intramuros admin din po

10:37:38 From Nico Rocha, Tondo Transport Assoc : @SMC, any proposal for building roads will be automatically met with the doubt given that none of your expressways prioritize moving people, not cars, and San Miguel Ave doesn't even have bike lanes. Please allow vehicles other than private cars on all your roads.

-- ay ngayon ko lang nalaman po na ang san Miguel avenue ay pag aari ng san Miguel corp. sa san Miguel bulakan, wala din po bike lane, sana lagyan din po

10:38:57 From Move as One Coalition - John Sevilla : Here's a link to our Facebook page:

https://www.facebook.com/search/top?q=move%20as%20one%20coalition

10:39:26 From Move as One Coalition - John Sevilla : Better link:

https://www.facebook.com/MoveAsOneCoalition

10:39:35 From Ken Abante - Citizens Budget Tracker : Baka ho pwedeng maipadala sa mga org reps na narito ang mga susunod na notices of meeting, para aware po kami sa meeting and consultation schedule? :)

10:40:37 From Ken Abante - Citizens Budget Tracker : Kung maaari pong maipadala rin sa email namin:

Move As One: moveasonecoalition@gmail.com

Citizens' Budget Tracker: ccbt-ph@googlegroups.com

Maraming salamat po!

10:41:08 From Renacimiento Manila - Bea Dolores : Renacimiento Manila -

renacimiento.manila@gmail.com

10:41:27 From KBPIP /PRRC - River Warrior Richard Pena or : reachpena or 19@gmail.com

10:41:44 From Lorraine C. Resident of an area near Ilog Pasi : Hi Sir Joel, marami pong questions dito sa chat na baka pwede nyong ma-address sa susunod na discussion.

10:41:53 From Kevin Skinker - Tambay Cycling Hub : kevintskinker@gmail.com

10:42:10 From UP One Earth - Joven Jacolbia : UP One Earth - gov.up.one.earth@gmail.com / jbjacolbia@up.edu.ph

10:42:22 From Move as One Coalition - John Sevilla : sunny_sevilla@yahoo.com

10:42:34 From 許文聰_Renzz Irvin Dela Torre : Heritage Conservation Society - University of Santo Tomas Chapter - renzzirvin.delatorre.archi@ust.edu.ph

10:42:50 From Lorraine C. Resident of an area near Ilog Pasi : Please also post on your website or

Facebook, not just email. For those like me who prefer to be private. Thank you.

10:42:55 From EMB CO-Joel Polintan : alll questions naman po will be all noted and be part of the Public Scoping documntation

10:43:06 From Kevin Skinker - Tambay Cycling Hub : @denr-emb is there anything we can do to push back against this destructive proposal other than attend these meetings?

10:43:07 From EMB CO-Joel Polintan : We also post this Notice in EMB Website

10:43:25 From Florence Ulili PIEP NCR : Philippine Institute of Environmental Planners NCR Chapter

10:43:37 From Florence Ulili PIEP NCR : piep.ncr@gmail.com

10:43:37 From EMB CO-Joel Polintan : Kindly sent us a letter po if you have opposition

10:43:42 From EMB CO-Joel Polintan : thaanks

10:43:57 From Lorraine C. Resident of an area near llog Pasi : Also not just for PAREX pero sa iba pa rin pong projects—Bulacan aerotropolis, subway system, etc. Nagiging one-sided lang po ang discussion kapag walang access ang public. Salamat.

10:44:13 From EMB CO-Joel Polintan : Noted maam

10:44:50 From Move as One Coalition - John Sevilla : Salamat po sa EMB for organizing and allowing us to attend. Salamat rin po sa San Miguel for being open to our comments.

10:45:15 From Lorraine C. Resident of an area near llog Pasi : Maraming salamat po sa EMB at SMC for opening this discussion at sa pakikinig.

10:45:19 From KBPIP / PRRC - River Warrior Richard Pena or : Salamat po for this forum.

10:45:27 From Green Party of the Philippines - David D'Angelo, President, : Thanks for organizing this

forum. I hope that the views and observations here can really be considered. More power to everyone.

10:45:30 From Ken Abante - Citizens Budget Tracker : Maraming salamat po sa EMB at SMC sa forum na ito!

10:45:32 From UP One Earth - Joven Jacolbia : San po namin isesend po Sir Joel?

10:46:00 From Dinna Dayao, independent journalist : Maraming salamat po sa lahat ng dumalo! Mr.

Polintan and EMB, we'll wait for the materials and recording of today's session.

10:46:02 From Lorraine C. Resident of an area near Ilog Pasi : And thank you to mass transport/public health/environmental advocates here.

10:46:02 From CPGI- Rodel C. Santos : Thanks and looking forward to attend the next session.

10:46:21 From Gaea Cabico - Philstar.com : gaeacabico@philstar.com

10:46:30 From PIEP NCR-Rene Babera : renebabera@gmail.com

10:46:53 From Jennet Razo : jerazo@slu.edu.ph Mabuhay!

10:46:55 From CPGI - Ar. Jen Maglaqui : jennifer.maglaqui@century-properties.com

10:46:59 From ALI - Rodney Asinas : rodney.asinas@gmail.com

10:47:02 From CPGI - Ar. Jen Maglaqui : thank you!

10:47:07 From Dinna Dayao, independent journalist : Maraming salamat, Mr. Polintan and EMB!

10:47:09 From Iris T., advocate of public transport : Irisg.Templo@gmail.com

10:47:14 From Iris T., advocate of public transport : Thank you!

10:47:23 From Iglesia Ni Cristo- Deo Quidato & Jazy Jongco : Thank you.



Received Invitation Letters



Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU DENR Compound, Visayas Avenue, Diliman, Quezon City 1116 Tel.Nos. (632)927-1517; 928-3725; Fax No.(632)920-2258 Website: www.emb.gov.ph Email: recordsco@emb.gov.ph





02 JULY 2021

Mr. Luis Oquinena
Chairman
Gawad Kalinga
2/F Choa Co Siu Hoo, 212 Haig St., Brgy. Daang Bakal, Mandaluyong City, Philippines, 1152

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Mr. Oquinena:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.eia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

aninov and and the mage Permin 1

ENRG. WILLIAM P. CUÑADO Director



Protect the environment... Protect life ...



Department of Environment and Natural Resources **ENVIRONMENTAL MANAGEMENT BUREAU** DENR Compound, Visayas Avenue, Diliman, Quezon City 1116 Tel.Nos. (632)927-1517; 928-3725; Fax No.(632)920-2258 Website: www.emb.gov.ph Email: recordsco@emb.gov.ph





02 JULY 2021

Mr. Jaime C. Medina General Manager Laguna Lake Development Authority Ecology Center, East Avenue, Diliman, Quezon City

SUBJECT PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS • PASIG RIVER EXPRESSWAY PROJECT

Dear Mr. Medina:

We are pleased to invite you or your representative to attend the Public Scoping for the Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	-

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: www.cia.emb.gov.ph (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

WILLIAM P. CUÑADO FUDC

Director

ANINA AREDEVELOPRENT ANTHONIT DEFINDER UNI EIVED BS : MARCELINAW THME RECEIVED ...

ilda. gov. ph



Protect the environment ... Protect life ...







02 JULY 2021

Sr. Ma. Marissa R. Viri *President* **Catholic Educational Association of the Philippines** #7 Road 16 Brgy. Bagong Pag-asa, Quezon City, Philippines 1105

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Sr. Viri:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
260 - 52 2058.8	Passcode: PAREX_PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.eia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

WILLIAM P. CUÑADO Director

Pecieva by Marlow Ecvadorle

7 - 9-2021 info@Ceap.org.ph 8931-8811 or 8926-5153

Protect the environment... Protect life...





Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU DENR Compound, Visayas Avenue, Diliman, Quezon City 1116 Tel.Nos. (632)927-1517; 928-3725; Fax No.(632)920-2258 Website: www.emb.gov.ph Email: recordsco@emb.gov.ph





02 JULY 2021

Engr. Manuel M. Muhi SUC President IV Polytechnic University of the Philippines PUP A. Mabini (Main) Campus, Sta. Mesa, Manila

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Engr. Muhi:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
, , , , , , , , , , , , , , , , , , ,	Passcode: PAREX PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.cia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

ENRG. WILLIAM P. CUÑADO Director

presidentapup.edu.ph hea apup.edu.ph





Protect the environment ... Protect life ...





02 JULY 2021

Commo Leovigildo G. Panopio Commander, CGDNCR-CL Philippine Coast Guard NCR Muelle Dela Industria Farola Compound, Binondo, Manila, Metro Manila

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Commo Panopio:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.cia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

VILLIAM P. CUÑADO

Director

LOR / TOD: 09 1200H July 2021 THRU: EMAIL / FAX LAC SENDER: alim MG RECEIVER CET CHDNCR-CL ENITIL ADD (norcloac@gmail.com)



Protect the environment... Protect life ...


Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU DENR Compound, Visayas Avenue, Diliman, Quezon City 1116 Tel.Nos. (632)927-1517; 928-3725; Fax No.(632)920-2258 Website: www.emb.gov.ph Email: recordsco@emb.gov.ph



02 JULY 202

Chairman Benjamin Jr. C. Abalos Chairman Metropolitan Manila Development Authority EDSA cor. Orense St., Guadalupe Nuevo, Makati City

			T	-
JUL	08	2025		

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Chairman Abalos:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.eia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

ILLIAM P. CUÑADO ENRC. W

Director









Minister Eduardo V. Manalo Executive Minister Iglesia Ni Cristo No. 1 Central Ave., New Era, Quezon City 1107 Philippines

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Minister Manalo:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX_PS
(Registration starts at 7:30 AM)	_

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.cia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

LLIAM P. CUÑADO ENR Director



JOHN DAVE GARCIA

JUL 08 2021 garcia dey b@gmail.com



Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU DENR Compound, Visayas Avenue, Diliman, Quezon City 1116 Tel.Nos. (632)927-1517; 928-3725; Fax No.(632)920-2258 Website: www.emb.gov.ph Email: recordsco@emb.gov.ph





02 JULY 2021

Fr. Roberto C. Yap President Ateneo de Manila 2/F, Xavier Hall, Ateneo de Manila University, Katipunan Avenue, Loyola Heights, Q.C.

PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS SUBJECT : PASIG RIVER EXPRESSWAY PROJECT

Dear Fr. Yap:

We are pleased to invite you or your representative to attend the Public Scoping for the Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	_

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: www.eia.emb.gov.ph (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

SG. FERNANDEZ, ASTERNO 09999097695 7.00 21

LLIAM P. CUÑADO ENR

Director



Protect the environment ... Protect life ...







Pres. Danilo L. Concepción President **University of the Philippines** Quezon Hall, UP Diliman, Quezon City 1101

PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS SUBJECT : PASIG RIVER EXPRESSWAY PROJECT

Dear Pres. Concepción:

We are pleased to invite you or your representative to attend the **Public Scoping** for the Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX_PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: www.eia.emb.gov.ph (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

sity of the Philippin

Secretary of the Unit

ministrative Section

RECEIVED BY:

Very truly yours,

O cto **ILLIAM P. CUÑADO**

Director

JUL 0 8 2021 Date: Ref. No .:



7189818500 100012524 Op@up.edu.ph



Protect the environment ... Protect life ...







Arch. Danilo Victor Jr. H. Lacuna CPDO Manila City LGU - CPDO Padre Burgos Ave, Ermita, Manila

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Arch. Lacuna:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX_PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.eia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

LLIAM P. CUÑADO ENRC

Director



CP dors IAQ goran - Con Protect the environment... Protect life...







Hon. Francisco Domagoso Mayor Manila City LGU Padre Burgos Ave, Ermita, Manila

78-5271920 the set of the state of the set OFFICE OF THE MAYOF ITY OF MANIL CEIVED

PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS SUBJECT : PASIG RIVER EXPRESSWAY PROJECT

Dear Hon. Domagoso:

We are pleased to invite you or your representative to attend the Public Scoping for the Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	=

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: www.eia.emb.gov.ph (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

ENRG. WILLIAM P. CUÑADO Director

mayoris stomoreno. marile guail.com



Protect the environment... Protect life ...







Hon. Victor Ma. Regis N. Sotto Mayor Pasig City LGU Caruncho Avenue 5/F. Pasig. 1600

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Hon. Sotto:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.eia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

ENRG. WILLIAM P. CUÑADO Director



7-7-21 / 1:05 pm.



8-643-1111 LOCAI 203



Protect the environment... Protect life...







Engr. Romelo S. Palermo CPDO Pasig City LGU - CPDO Caruncho Avenue 5/F. Pasig, 1601

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Engr. Palermo:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	-

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.cia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

VILLIAM P. CUÑADO ENDC

Director





GHAfir







Hon. Francisco Javier M. Zamora Mayor
San Juan City LGU
Pinaglabanan Street, cor Dr.P.A.Narciso Street, San Juan City

SUBJECT : **PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT**

Dear Hon. Zamora:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX_PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.eia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

ENRG. WILLIAM P. CUÑADO Director









 O2 JULY 2021
 OS

 I anggapan ng Punong Lungsod

 KGG. CARMELITA A. ABALOS

 Mayor

 Mandaluyong City LGU

 4/F Executive Building, City Government Complex, Maysilo St., Plainview, Mandaluyond Lity 7 2021

 SUBJECT
 PUBLIC SCOPING FOR THE PROPOSED PASIG RIVER EXPRESSWAY PROJECT

 Ibras: KillOMETERS
 Kontrol #

 Tinanggap ni:
 Kontrol #

Dear Hon. Abalos:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
· · ·	Passcode: PAREX PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.cia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

ENRG. WILLIAM P. CUÑADO Director

tf-up/kayed kare Email: cityofmando@gmail.com Cristad No: 08-632-2224



Protect the environment... Protect life ...







Mr. Armando T. Comandao *CPDO* Mandaluyong City LGU - CPDO 5/F Executive Building, City Government Complex, Maysilo Circle, Plainview

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Mr. Comandao:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	_

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.cia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

ENRG. WILLIAM P. CUÑADO

ENRG. WILLIAM P. CUNADO Director





Protect the environment... Protect life ...





Hon. Mar-Len Abigail S. Binay Mayor
Makati City LGU
21/F New Makati City Hall Bldg City Government of Makati J.P. Rizal St., Brgy. Poblacion Makati City 1200, Philippines

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Hon. Binay:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proposed measures to address these impacts. Project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: www.cia.emb.gov.ph (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

Octob ENRC LLIAM P. CUÑADO

Director









Dr. Merlina G. Panganiban *UDD Head* **Makati City LGU - Urban Development Department (UDD)** 21/F New Makati City Hall Bldg City Government of Makati J.P. Rizal St., Brgy. Poblacion Makati City 1200, Philippines

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Dr. Panganiban:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
• • • • •	Passcode: PAREX PS
(Registration starts at 7:30 AM)	_

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proponent will present about the proposed project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.eia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

LLIAM P. CUÑADO ENRG Director









Hon. Miguel III Ponce Mayor Pateros LGU PATEROS MUNICIPAL HALL, G. de Borja Street, Barangay Aguho

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Hon. Ponce:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proposed measures to address these impacts. Project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.cia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

ENRG. WILLIAM P. CUÑADO

Director

OFFICE OF THE MAYOR E PONCE III 1090 6411090 ILEA DATE: PATEROS, METRO MANILA

Hangpateror@gnail.com



Protect the environment... Protect life...



tment of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU DENR Compound, Visayas Avenue, Diliman, Quezon City 1116 Tel.Nos. (632)927-1517; 928-3725; Fax No.(632)920-2258 Website: www.emb.gov.ph Email: recordsco@emb.gov.ph





02 JULY 2021

Hon. Lino Edgardo Schramm Cayetano Mayor Taguig City LGU TAGUIG CITY HALL, General Luna Street, Taguig City, Metro Manila

SUBJECT : PUBLIC SCOPING FOR THE PROPOSED 19.37 KILOMETERS PASIG RIVER EXPRESSWAY PROJECT

Dear Hon. Cayetano:

We are pleased to invite you or your representative to attend the **Public Scoping** for the **Proposed 19.37 kilometers Pasig River Expressway Project (PAREX) of SMC Infrastructure** traversing the Cities of Manila, Mandaluyong, Makati, Pasig and Taguig. The said Scoping is scheduled on:

Date / Time	Zoom Details
14 July 2021 (Wednesday) /8:00 AM	Meeting ID: 844 9094 1094
	Passcode: PAREX PS
(Registration starts at 7:30 AM)	

The Public Scoping will be conducted as part of the requirements of the Philippine Environmental Impact Statement System in relation to the proponent's application for Environmental Compliance Certificate. Representatives from the proposed measures to address these impacts. Project activities, its potential impacts, and the proposed measures to address these impacts. Project stakeholders within the concerned local communities will be given the opportunity to express freely their concerns, support, opposition or questions about the project in order to identify the most significant issues and impacts of the Proposed Project that need to be addressed in the project's Environmental Impact Assessment study.

A copy of the Project Description Report for Scoping is downloadable at our website: <u>www.eia.emb.gov.ph</u> (kindly access the Notice of Public Scoping link found at the lower right portion of our website). For more details, you may contact this Office at telephone numbers (02) 8920-2240 to 41.

Thank you and we look forward to your participation.

Very truly yours,

LLIAM P. CUÑADO ENRG.

Director





Protect the environment ... Protect life ...

PS ANNEX D

Presentation Materials

PASIG RIVER EXPRESSWAY PROJECT



COVERED LGUS





PROJECT DESCRIPTION AND ALIGNMENT



PROJECT SEGMENTS

Segment	Begin		End		Len	No. of		
	LOCATION	STATION	LOCATION	STATION	Roadway	Lane-KM	INT	
1	R-10	0+000	PLAZA AZUL	05+740	5.74	34.44	6	
-	PLAZA AZUL (MMSS3)	05+740	PANDACAN (MMSS3)	08+440	2.70	16.20	6	
2	PANDACAN (MMSS3)	08+440	C5 INTERSECTION	15+765	7.325	43.95	6	
3	C5 INTERSECTION	15+765	C6 INTERSECTION	22+065	6.30	37.80	6	
	TOTAL				22.065	132.39		



ALIGNMENT





COMPLIMENTARY PROJECTS TO PAREX NLEX-SLEX Connector & MM Skyway Stage 3 Project

The interconnectivity with PAREX facilitates seamless elevated road accessibility between the northern/southern provinces of Luzon (via NLEX and SLEX) and the east, west, and central regions of Metro Manila.







COMPLIMENTARY PROJECTS TO PAREX Southeast Metro Manila Expressway (SEMME) / C6

The interconnectivity with PAREX facilitates seamless elevated road accessibility between the eastern/central areas of Metro Manila to the province of Rizal, eastern areas of Quezon City, Pasig City, and Taguig (via SEMME/C6 Expressway).







Complimentary Projects to PAREX C5-MRT10 Project (via C5 Interchange)

The interconnectivity with PAREX provides a convenient elevated road access of passengers coming from the western and central areas of Metro Manila to the proposed C5 mass transit (MRT 10) - an alternative to the already congested MRT 3.





COMPLIMENTARY PROJECTS TO PAREX Fort Bonifacio-Makati Skytrain (via EDSA Interchange)

The interconnectivity with PAREX provides a convenient elevated road access of passengers coming from the western and central areas of Metro Manila to the proposed People Mover as a quick and direct access to BGC (via Guadalupe Station).





INTERFACE WITH METRO MANILA SUBWAY PROJECT (MMSP)











PERSPECTIVES Nagtahan



PERSPECTIVES EDSA Intersection





PERSPECTIVES C-5 Intersection



PERSPECTIVES SEMME/C6 Intersection



PERSPECTIVES San Juan Intersection







CONSTRUCTION SCHEDULE

DESCRIPTION (ACTIVITIES	YEAR 1					YEAR 2								YEAR 3											YEAR 4														
DESCRIPTION/ACTIVITIES	1	2	3	1 5	6	7	8 9	10	11 12	13	3 14	15	16	17 18	19	20	21	22	23 24	25	26	27	28 2	9 30	31	32	33	34	35 3	6 37	7 38	39	40	41 4	2 43	44	45	46	47 48
DETAILED ENGINEERING DESIGN					12 N	IONTHS							T		Τ						İ			1	T	÷		T				 	T	1					
Field Investigation Works					1								1		T			T			T		1		1	1		1					ľ	1	1			ľ	
Hydrology and Drainage							1						1		1						1				1								ľ					1	
Highway Alignment Design																																							
Bridge/Structure Design																																							
Miscellaneous Works																																							
Reports and Documentation					<u> </u>																1																		
CONSTRUCTION Segment 1 (R10 - MMSS3)													2	4 MONTH	IS																								
Foundation Works			Î	T	1			1						1							1		T	1		1			1		1	1	Τ	1					
Columns/Pier	l	T	l		Ì														ĺ		1			1		l			l			ĺ	Τ	Ī			Ĩ		l
Coping Beams			1		I							l														ļ			Į			l		l					
Girders, Slab, Parapet & Railing	l	ľ			I							I																				I							
Other Miscellaneous Works					1																					ļ													
CONSTRUCTION Segment 2 (MMSS3 - C5)														33 1	MONTHS																								
Foundation Works]																		
Columns/Pier				ļ																						<u> </u>												ļ	
Coping Beams				Į	<u> </u>	1			ļ												1					<u> </u>													
Girders, Slab, Parapet & Railing					<u> </u>																					<u> </u>													
Other Miscellaneous Works						1															1																		
CONSTRUCTION Segment 3 (C5-C6)					1																		24	MONTH	IS														
Foundation Works																																							
Columns/Pier					T		Ì								Ì			l			1												I					Ì	
Coping Beams		T			1								T							1	1									1		1		1			1		
Girders, Slab, Parapet & Railing			Π		T		Ì								Î			Î			T				1													Î	
Other Miscellaneous Works		Ť		1	1							1	1	1	T						1			1		1						1							



Thank you!

PASIG RIVER EXPRESSWAY PROJECT



ANNEX 7

Water Quality Laboratory Analysis



OSTREA MINERAL LABORATORIES, Inc. Assaying and Environmental Testing Specialist

Barangay Road, Bo. Mamplasan, Biñan, Laguna, Philippines 4024 Telefax : (02) 889-9058; (049) 539-0102; (02) 848-6951 Email : customer.service@ostrealabs.com.ph



CAN

DENR Recognized Laboratory with C.R No. 011/2018

CERTIFICATE	OF	ANALYSIS
-------------	----	-----------------

- **Customer** : RHR CONSULT SERVICES, INC.
- Address : Unit 606 FSS. Bldg. 2, Scout. Tuason, Quezon City
- Attention : MR. JESS ADDAWE

Contact Information: 0917-886-4268/jess.addawe@gmail.com

Original Issue						
Duplicate issue by request						
Revision Copy						

:**C21-10-511**

Date of Issue :10/19/2021 RAN :R21-10-229 INVOICE :: Date Received:10/8/2021 Date Sampled:-Date Analyzed:10/8-15/2021

RESULTS OF ANALYSIS

Sample Descriptions	Parameters	Results	Units	Methods
Project Name:				
Pasia River				
Expressway Project				
Date Sampled: 10/7/202	1			
S1	рН	7.5	-	Electrometric
	Color	125	ACU	Visual Comparison
	Dissolved Oxygen (DO)	3	mg/L	Iodometric
	Biochemical Oxygen Demand (BOD)	20	mg/L	5 - Day BOD Test
	Total Suspended Solids (TSS)	34	mg/L	Gravimetric, dried at 103-105 °C
	Oil and Grease	<1.0	mg/L	Liquid-Liquid, Partition - Gravimetric
	Surfactants (MBAS)	<0.10	mg/L	Anionic Surfactants as MBAS
	Hexavalent Chromium (Cr⁵+)	<0.01	mg/L	Colorimetric
	Phosphate	0.44	mg/L	Stannous Chloride
	Nitrate as NO ₃ ⁻ -N ^a	0.23	mg/L	Colorimetric, Brucine
	Chloride (Cl ⁻)	120.5	mg/L	Argentometric
	Sulfate (SO4 ²⁻)	24	mg/L	Turbidimetric
	Arsenic (As)	0.0028	mg/L	Manual Hydride Generation AAS
	Cadmium (Cd)	<0.003	mg/L	Direct Air-Acetylene Flame
	Lead (Pb)	<0.01	mg/L	Direct Air-Acetylene Flame
	Mercury (Hg)	<0.0004	mg/L	Cold Vapor AAS
	Thermotolerant (Fecal) Coliform	54 x 10 ³	MPN/100mL	Multiple Tube Fermentation Technique -
				Fecal Coliform Procedure

Not valid without OMLI dry seal

Page 1 of 4

C21-10-511

This Report is the confidential property of the client named. Prior client approval is required to verify and confirm the information contained herein. Persons acting without diligent verification do so at their peril. Unless otherwise authorized, all reprographic, dissemination and publication rights are reserved, including downloads, digital and image files and representations.

Uninterrupted Total Quality Service Since
Sample Descriptions Parar

Parameters

Results Units

Methods

рН	7.6	-	Electrometric
Color	125	ACU	Visual Comparison
Dissolved Oxygen (DO)	3	mg/L	lodometric
Biochemical Oxygen Demand (BOD)	18	mg/L	5 - Day BOD Test
Total Suspended Solids (TSS)	59	mg/L	Gravimetric, dried at 103-105 °C
Oil and Grease	<1.0	mg/L	Liquid-Liquid, Partition - Gravimetric
Surfactants (MBAS)	<0.10	mg/L	Anionic Surfactants as MBAS
Hexavalent Chromium (Cr ⁶⁺)	<0.01	mg/L	Colorimetric
Phosphate	0.44	mg/L	Stannous Chloride
Nitrate as NO ₃ ⁻ -N ^a	0.21	mg/L	Colorimetric, Brucine
Chloride (Cl⁻)	72.4	mg/L	Argentometric
Sulfate (SO4 ²⁻)	14	mg/L	Turbidimetric
Arsenic (As)	0.0029	mg/L	Manual Hydride Generation AAS
Cadmium (Cd)	<0.003	mg/L	Direct Air-Acetylene Flame
Lead (Pb)	<0.01	mg/L	Direct Air-Acetylene Flame
Mercury (Hg)	<0.0004	mg/L	Cold Vapor AAS
Thermotolerant (Fecal) Coliform	16 x 10 ⁵	MPN/100mL	Multiple Tube Fermentation Technique -
			Fecal Coliform Procedure
рН	7.5	-	Electrometric
Color	125	ACU	Visual Comparison
Dissolved Oxygen (DO)	5	mg/L	lodometric
Biochemical Oxygen Demand (BOD)	7	mg/L	5 - Day BOD Test
Total Suspended Solids (TSS)	55	mg/L	Gravimetric, dried at 103-105 °C
Oil and Grease	<1.0	mg/L	Liquid-Liquid, Partition - Gravimetric
Surfactants (MBAS)	<0.10	mg/L	Anionic Surfactants as MBAS
Hexavalent Chromium (Cr ⁶⁺)	<0.01	mg/L	Colorimetric
Phosphate	0.37	mg/L	Stannous Chloride
Nitrate as NO ₃ ⁻ -N ^a	0.25	mg/L	Colorimetric, Brucine
Chloride (Cl ⁻)	70.9	mg/L	Argentometric
Sulfate (SO4 ²⁻)	12	mg/L	Turbidimetric
Arsenic (As)	0.0035	mg/L	Manual Hydride Generation AAS
Cadmium (Cd)	<0.003	mg/L	Direct Air-Acetylene Flame
Lead (Pb)	<0.01	mg/L	Direct Air-Acetylene Flame
Mercury (Hg)	<0.0004	mg/L	Cold Vapor AAS
Thermotolerant (Fecal) Coliform	35 x 10⁵	MPN/100mL	Multiple Tube Fermentation Technique -
			Fecal Coliform Procedure

S3

S2

Not valid without OMLI dry seal

Page 2 of 4

C21-10-511

This Report is the confidential property of the client named. Prior client approval is required to verify and confirm the information contained herein. Persons acting without diligent verification do so at their peril. Unless otherwise authorized, all reprographic, dissemination and publication rights are reserved, including downloads, digital and image files and representations.

Uninterrupted Total Quality Service Since

Sample Descriptions	Parameters	Results	Units	Methods
S4	рН	7.9	-	Electrometric
	Color	125	ACU	Visual Comparison
	Dissolved Oxygen (DO)	4	mg/L	Iodometric
	Biochemical Oxygen Demand (BOD)	35	mg/L	5 - Day BOD Test
	Total Suspended Solids (TSS)	36	mg/L	Gravimetric, dried at 103-105 °C
	Oil and Grease	<1.0	mg/L	Liquid-Liquid, Partition - Gravimetric
	Surfactants (MBAS)	<0.10	mg/L	Anionic Surfactants as MBAS
	Hexavalent Chromium (Cr ⁶⁺)	< 0.01	mg/L	Colorimetric
	Phosphate	0.31	mg/L	Stannous Chloride
	Nitrate as NO ₃ ⁻ -N ^a	0.26	mg/L	Colorimetric, Brucine
	Chloride (Cl⁻)	89.2	mg/L	Argentometric
	Sulfate (SO4 ²⁻)	13	mg/L	Turbidimetric
	Arsenic (As)	0.0036	mg/L	Manual Hydride Generation AAS
	Cadmium (Cd)	<0.003	mg/L	Direct Air-Acetylene Flame
	Lead (Pb)	<0.01	mg/L	Direct Air-Acetylene Flame
	Mercury (Hg)	<0.0004	mg/L	Cold Vapor AAS
	Thermotolerant (Fecal) Coliform	16 x 10 ⁴	MPN/100mL	Multiple Tube Fermentation Technique -
				Fecal Coliform Procedure
S5	рН	8.3	-	Electrometric
	Color	125	ACU	Visual Comparison
	Dissolved Oxygen (DO)	5	mg/L	lodometric
	Biochemical Oxygen Demand (BOD)	12	mg/L	5 - Day BOD Test
	Total Suspended Solids (TSS)	42	mg/L	Gravimetric, dried at 103-105 °C
	Oil and Grease	<1.0	mg/L	Liquid-Liquid, Partition - Gravimetric
	Surfactants (MBAS)	<0.10	mg/L	Anionic Surfactants as MBAS
	Hexavalent Chromium (Cr ⁶⁺)	<0.01	mg/L	Colorimetric
	Phosphate	0.26	mg/L	Stannous Chloride
	Nitrate as NO₃ [−] -N ^a	0.25	mg/L	Colorimetric, Brucine
	Chloride (Cl⁻)	87.8	mg/L	Argentometric
	Sulfate (SO ₄ ²⁻)	14	mg/L	Turbidimetric
	Arsenic (As)	0.0035	mg/L	Manual Hydride Generation AAS
	Cadmium (Cd)	<0.003	mg/L	Direct Air-Acetylene Flame
	Lead (Pb)	<0.01	mg/L	Direct Air-Acetylene Flame
	Mercury (Hg)	<0.0004	mg/L	Cold Vapor AAS
	Thermotolerant (Fecal) Coliform	54 x 10 ³	MPN/100mL	Multiple Tube Fermentation Technique -
				Fecal Coliform Procedure

Not valid without OMLI dry seal

Page 3 of 4

C21-10-511

This Report is the confidential property of the client named. Prior client approval is required to verify and confirm the information contained herein. Persons acting without diligent verification do so at their peril. Unless otherwise authorized, all reprographic, dissemination and publication rights are reserved, including downloads, digital and image files and representations.

Uninterrupted Total Quality Service Since 1976

Sample Descriptions	Parameters	Results	Units	Methods
S6	рН	7.8	-	Electrometric
	Color	125	ACU	Visual Comparison
	Dissolved Oxygen (DO)	5	mg/L	Iodometric
	Biochemical Oxygen Demand (BOD)	11	mg/L	5 - Day BOD Test
	Total Suspended Solids (TSS)	58	mg/L	Gravimetric, dried at 103-105 °C
	Oil and Grease	<1.0	mg/L	Liquid-Liquid, Partition - Gravimetric
	Surfactants (MBAS)	<0.10	mg/L	Anionic Surfactants as MBAS
	Hexavalent Chromium (Cr ⁶⁺)	<0.01	mg/L	Colorimetric
	Phosphate	0.27	mg/L	Stannous Chloride
	Nitrate as NO ₃ ⁻ -N ^a	0.27	mg/L	Colorimetric, Brucine
	Chloride (Cl⁻)	89.7	mg/L	Argentometric
	Sulfate (SO_4^{2-})	14	mg/L	Turbidimetric
	Arsenic (As)	0.0039	mg/L	Manual Hydride Generation AAS
	Cadmium (Cd)	<0.003	mg/L	Direct Air-Acetylene Flame
	Lead (Pb)	<0.01	mg/L	Direct Air-Acetylene Flame
	Mercury (Hg)	<0.0004	mg/L	Cold Vapor AAS
	Thermotolerant (Fecal) Coliform	35 x 10 ³	MPN/100mL	Multiple Tube Fermentation Technique -
				Fecal Coliform Procedure

Note : The customer is given 7 days upon receipt to raise questions or clarifications on any part or content of the certificate, otherwise the result(s) is /are deemed accepted.

Total No. of Samp	es:6 Total Analysis: 102
Sample Submissio	n :Submitted by the Customer
Reference	: Standard Methods for the Examination of Water and Wastewater, 23rd ed.; a USEPA Method 352.1
Remarks	: Results relate only to the items tested and received by the laboratory.

Certified Correct by:	Mall	60-	Approved by:	
	CHRISTOPHER D. HERNANDEZ, RMicro-PAM Microbiology Section Head	MA. CRISTINA F. REFERENTE, RCh PRC No. 0007398	-	ALVIN P. BASCO, RCh PRC No. 0011786
	0,	Laboratory Head		Vice President-Operations

Not valid without OMLI dry seal

Page 4 of 4

C21-10-511

This Report is the confidential property of the client named. Prior client approval is required to verify and confirm the information contained herein. Persons acting without diligent verification do so at their peril. Unless otherwise authorized, all reprographic, dissemination and publication rights are reserved, including downloads, digital and image files and representations.

Uninterrupted Total Quality Service Since 1976

ANNEX 8

List of Impact Barangays

The table below presents the Impact Barangays for the PAREX Project. Final list shall be established during DED stage. The source of population per barangay is PSA.

LIST OF DIRECT INTERCE DARANGATS FLIX CITE AND FOF OLATION (2015)

Name	City	Population (2015)
BARANGAY 287	Manila	2,049
BARANGAY 291	Manila	1,383
BARANGAY 384	Manila	3,195
BARANGAY 306	Manila	1,310
BARANGAY 275	Manila	19,031
BARANGAY 282	Manila	2,548
BARANGAY 283	Manila	1,982
BARANGAY 284	Manila	1,032
BARANGAY 285	Manila	2,306
BARANGAY 286	Manila	3,679
BARANGAY 636	Manila	2,562
BARANGAY 639	Manila	479
BARANGAY 640	Manila	2,242
BARANGAY 643	Manila	734
BARANGAY 646	Manila	867
BARANGAY 647	Manila	1 153
BARANGAY 659-A	Manila	1 401
BARANGAY 661	Manila	331
BARANGAY 663	Manila	436
BARANGAY 663-A	Manila	370
BARANGAY 656	Manila	369
BARANGAY 662	Manila	2.891
BARANGAY 664-A	Manila	540
BARANGAY 829	Manila	4,103
BARANGAY 830	Manila	7,923
BARANGAY 832	Manila	297
BARANGAY 833	Manila	1,669
BARANGAY 834	Manila	1,618
BARANGAY 835	Manila	2,675
BARANGAY 836	Manila	5,953
BARANGAY 839	Manila	1,819
BARANGAY 842	Manila	3,941
BARANGAY 844	Manila	5,273
BARANGAY 845	Manila	1,939
BARANGAY 846	Manila	2,002
BARANGAY 847	Manila	3,188
BARANGAY 848	Manila	1,295
BARANGAY 850	Manila	2,257
BARANGAY 851	Manila	1,142
BARANGAY 856	Manila	2,080
	Manila	2,089
BARANGAY 858	Manila	580
BARANGAY 859	Manila	2 355
BARANGAY 860	Manila	1 390
BARANGAY 861	Manila	1 013
BARANGAY 862	Manila	2 408
BARANGAY 863	Manila	1.565
BARANGAY 864	Manila	783
BARANGAY 865	Manila	2,481
BARANGAY 867	Manila	3,097
BARANGAY 868	Manila	2,447
BARANGAY 870	Manila	1,829
BARANGAY 872	Manila	2,406
BARANGAY 649	Manila	59,847
BARANGAY 653	Manila	20
BARANGAY 881	Manila	2,496

Name	City	Population (2015)
BARANGAY 883	Manila	1,863
BARANGAY 884	Manila	2,082
BARANGAY 887	Manila	717
BARANGAY 888	Manila	807
BARANGAY 890	Manila	1,288
BARANGAY 891	Manila	1,044
BARANGAY 892	Manila	1,262
BARANGAY 896	Manila	1,370
BARANGAY 897	Manila	2,219
BARANGAY 898	Manila	7,444
BARANGAY 900	Manila	8,082
BARANGKA IBABA	Mandaluyong	9,540
BARANGKA ILAYA	Mandaluyong	17,896
BARANGKA ITAAS	Mandaluyong	11,252
HULO	Mandaluyong	27,515
MABINI-J. RIZAL	Mandaluyong	7,628
NAMAYAN	Mandaluyong	6,123
PLAINVIEW	Mandaluyong	26,575
VERGARA	Mandaluyong	5,910
BAGONG ILOG	Pasig	16,797
BAMBANG	Pasig	20,657
BUTING	Pasig	11,093
KALAWAAN	Pasig	29,892
PINAGBUHATAN	Pasig	151,979
PINEDA	Pasig	18,167
SAN JOAQUIN	Pasig	13,207
SANTA ROSA	Pasig	1,025
SUMILANG	Pasig	5,358
CEMBO	Makati	26,213
CARMONA	Makati	3,109
EAST REMBO	Makati	28,114
GUADALUPE NUEVO	Makati	18,341
GUADALUPE VIEJO	Makati	13,415
KASILAWAN	Makati	5,881
OLYMPIA	Makati	20,251
POBLACION	Makati	25,393
VALENZUELA	Makati	6,310
WEST REMBO	Makati	29,899
NAPINDAN	Taguig	19,346
TOTAL		796,139

ANNEX 9

SMC Infrastructure and NHCP Communications

RECEIVING COPY



11/F San Miguel Properties Centre, 7 St. Francis St., Mandaluyong City 1550 Metro Manila, Philippines

15 November 202

REG. I

'IME

DR. RENE R. ESCALANTE Chairman NATIONAL HISTORICAL COMMISSION OF THE PHILIPPINES NHCP Building, T.M. Kalaw Avenue, Ermita, Manila

RE: PETITION OF THE MOVE AS ONE COALITION

Dear Dr. Escalante,

We reply to your letter dated 07 October 2021 referring to us the request of the Move as One Coalition (MAOC) signed by a certain Mr. Robert Y. Siy, Jr. (Mr. Siy) to the NHCP to (a) issue a Cease and Desist Order against the implementation of the Pasig River Expressway (PAREX) Project; (b) undertake an assessment of the impact of PAREX Project on national cultural treasures, heritage zones and other important cultural properties (ICP); and (c) conduct [a] hearing to evaluate the full impact of [the] PAREX Project on national heritage by involving interested parties and stakeholders.

In his letter, Mr. Siy states that the PAREX "violates several important provisions of Republic Act (R.A.) No. 10066" because:

- (i) (sic) It will damage the dignity and authenticity of numerous national cultural treasures and other important cultural properties along the Pasig River;
- (b) it will undermine the historical and cultural integrity of the Intramuros heritage zone; and
- (c) it will significantly hinder the public accessibility of many historical landmarks, monuments and sites."

In the same letter, Mr. Siy alleges that "it appears irregular that the project has been approved and is moving forward without any of the national cultural agencies [being] informed and consulted about the project's impact on national cultural treasures and other cultural properties."

With all due respect, we vehemently disagree with the unfounded allegations of the MAOC considering that they are mere conjectures and speculations without any basis whatsoever.

Factual Background

On 21 September 2021, the Department of Transportation (DOTr), Department of Public Works and Highways (DPWH), Toll Regulatory Board (TRB) and San Miguel Corporation (SMC) signed the Supplemental Toll Operations Agreement (STOA) for the PAREX Project, a #95-Billion initiative by SMC to build a 19.37-kilometer elevated expressway along the banks of the Pasig River.

The PAREX Project has undergone thorough government review by the Toll Regulatory Board where members of the Department of Finance, Department of Public Works and Highways, Department of Transportation, a representative of the private sector, among others, sit and participate. Following the approval of the PAREX project by the government, a thorough environmental study for securing an Environmental Compliance Certificate (ECC), was conducted from 2019 to 2020. The DENR invited the attendees to the meeting.

In order to secure an ECC, SMC had to comply with the requirements of conducting at Environmental Impact Assessment (EIA) in order to show that the PAREX will not cause a significant negative impact on the environment. During the environmental study, there were several public hearings conducted from July to August 2020 where stakeholders from various civil groups, including the MOAC, the public in the vicinity of the project and DENR experts were present.

The EIA study also included and examined the impacts the PAREX will have on the environment as well as the current state of the environment at the project site. Thereafter, an Environmental Impact Statement (EIS) was prepared, which is the report based on the findings of the EIA study. This EIS includes plans to mitigate the impacts of the project, as approved by the Department of Environment and Natural Resources (DENR).

Significantly, the PAREX Project is envisioned to be the Philippines' first green, inclusive and sustainable infrastructure project incorporating green design, and complemented by a massive Pasig River clean-up and long-term rehabilitation program.

The PAREX Project aims to connect the eastern and western parts of Metro Manila, with different access points across the alignment, starting from Radial Road 10 in the City of Manila all the way to Taytay, Rizal.

The Cease and Desist Order is premature and has no basis in law and in fact.

The MOAC enjoins the NHCP to issue SMC Infrastructure a Cease and Desist Order to halt the implementation of the PAREX. However, while it cites provisions in Republic Act (R.A.) No. 10066 or the "*National Cultural Heritage Act of 2009.*", MOAC was not, as it cannot, cite any law specifically prohibiting the construction of the PAREX.

First, it cites the mandate of the NHCP, which is to protect national treasures, but it was not able to state anything to support their claims that the PAREX will bring any damage to any of these national treasures. Rather, MOAC cites a broad sweeping statement that there are "over 40 items considered as national cultural treasures or important cultural properties along the Pasig River", but it was not able to substantiate how and why PAREX could actually damage them. Further, MOAC could not cite any

bases as to how the "structural integrity" of the built heritage along the Pasig River" will be under threat "during construction" and "during the operation" of the expressway from "vibrations" from a constant stream of motor vehicles. With all due respect, and most important to note – is that the PAREX will not be anywhere near these "40 items" considered as national cultural treasures, as the PAREX will be by the Pasig River. (Attached as Annex A is the approved alignment of the PAREX)

.

On the contrary, the PAREX project aims to bring benefits and advantages to the community as shown in public hearings and consultations. In fact, by going through the thorough review of the TRB which includes representatives of other government agencies like the Department of Finance, Department of Transportation and the NEDA, it has been determined that the advantages clearly outweigh any imagined risk brought about by the PAREX project.

Second, a Cease and Desist Order is not ripe for adjudication nor is it applicable.

R.A. No. 10066 which empowers the National Commission for Culture and the Arts and other cultural agencies to issue a Cease and Desist order "when physical integrity of the national cultural treasures or important cultural properties is found to be in danger of destruction or significant alteration from its original state," the appropriate cultural agency shall immediately issue a Cease and Desist Order suspending all activities that will affect the cultural property." The same law does not mention that another project, not itself a heritage or property may be the subject of a Cease and Desist Order.

More importantly, there is nothing in the PAREX project that will affect the "physical integrity" of any of the historical sites in Manila or that the PAREX will "significantly alter" any of these historical sites from its original state. Clearly, R.A. No. 10066 cannot apply to this project. (see attached *Annex A*),)

What we have now is the preliminary concept design, designed together with the government. Following the approval thereof and the signing of the STOA, we have moved to the next process which is to come up with the Detailed Engineering Design (DED). This is the stage where various concerns are tackled and taken into consideration, including the discussion of the historical impact of the project, if any. SMC has already committed to national government agencies as well as local government units regarding the adaptation to the project's surroundings and on-ground conditions, and that these will be included in the DED.

Considering that SMC Infrastructure is still in the process of finalizing its DED, at this point, there is still no "property found to be in danger of destruction or significant alteration from its original state".

It is therefore premature and unnecessary, and a Cease and Desist Order is not yet ripe for adjudication given that the elements for its issuance are not present.

Historical Impact Assessment

As with other SMC Infrastructure projects, the SMC commits to undertake consultations with relevant government agencies and institutions, and undertake the Historical Impact Assessment required by the NHCP. However, it is important to note that the national government itself, through the respective departments sitting in the TRB, has approved the PAREX Project. More importantly as shown in the basic alignment developed with, and approved by DPWH (see attached *Annex A*), Segment 1 of the PAREX section in Manila will be positioned at the opposite side of Intramuros. In fact, it will provide better views of the historical corridor from an ideal vantage point for motorists, tourists, cyclists and pedestrians to enjoy.

Further, the PAREX Project aims to boost tourism and the local economy by providing easier access to both Intramuros and Binondo as preserving heritage sites is extremely important to SMC. Thus, the important work of preserving historical sites should, and will, continue.

In fact, SMC has always supported these initiatives in the past, including donating to the Manila Cathedral in Intramuros. SMC has always, and is, committed to ensuring that sustainable development and the preservation of historical sites should coexist. Assuming without conceding that there is any significant heritage site that may be affected by the PAREX Project, we can always implement various engineering solutions.

SMC believes that relevance of historical sites should not be diminished just because nearby security structures may impede views from specific angles. All over the world, historical sites endure, lend beauty, and serve as a reminder of history, even as the cities they are in, and their surrounding landscapes continuously evolve, grow and modernize.

Nevertheless, SMC undertakes to coordinate with the National Historical Commission of the Philippines for any discussion involving the final DED of the PAREX Project, and vows to make sure that the final detailed design of the expressway will incorporate measures to address historical concerns.

We hope we have clarified our position on the matter.

Sincerely,

C. ROMULO Authorized Representative



National Historical Commission of the Philippines

16 November 2021

MR. RAOUL C. ROMULO Authorized Representative San Miguel Holdings Corp. 11/F San Miguel Properties Centre 7 St. Francis St., Mandaluyong City

Dear Mr. Romulo,

Greetings from the National Historical Commission of the Philippines (NHCP)!

This is to acknowledge your letter dated 15 November 2021, submitting to the NHCP your position regarding the petitions against the implementation of the Pasig River Expressway (PAREX) project.

We appreciate your commitment to conduct a Heritage Impact Assessment (HIA) on all the areas that will be affected by the project. Once completed, kindly transmit it to the Commission. We will also require you to submit the final Detailed Engineering Design (DED) of the project for our review and approval.

Should you have any queries, you may coordinate with the Office of the Chair at chair@nhcp.gov.ph.

Thank you.



For feedback, kindly scan this QR code to fill-up the form. Thank you.

Yours thu DR. RENE R. ESCALANTE Chairman

N.H.C.P. Building, T.M. Kalaw St., Ermita, Manila, The Philipping







Economic Analysis of the Project

SECTION 4. ECONOMIC VIABILITY ASSESSMENT

4.1 ESTIMATED ECONOMIC COST AND BENEFITS

A toll road project has direct and indirect benefits and costs. Direct benefits include vehicle operating costs, time savings and safety benefits for the users. On a larger scale, it indirectly contributes to the region's economic development by improving the investment environment, improved exchange and circulation of commodities, providing convenient transportation for the tourists and serves as a catalyst to development in towns and cities.

The prime goal of any infrastructure or transportation project is to meet the current and future demand at a level of service that will ensure safety and efficiency. The main objective of the Toll Road Project is, thus, to build a more efficient transportation facility that will provide the region with greater connectivity and mobility to fuel economic growth, as well as improved access between markets, producers and consumers.

By building the Toll Road, the travel time will be reduced in half or even a third. This is particularly beneficial for motorists and passengers coming from Metro Manila. At the same time, the level of congestion is reduced in the existing arterial roads, which would be beneficial to residences and establishments in urban centers along the main arterial road.

The Toll Road will increase the mobility of people and goods, which in turn will lead to socioeconomic development. The market reach of the products in the cities and towns traversed by the Project will considerably increase as producers and consumers are able to reach the market at a faster time and at a lower cost. At the same time, workers will have a wide array of employment opportunities from the construction activities related to the Toll Road, and new or expanding industries that may arise due to the increase mobility brought by the Toll Road. The U.S. Federal Highway Administration (FHWA) estimates that private capital in highways in USA provide 11% return on investment³. The FHWA further estimates that for every additional dollar of highway infrastructure capital stock, the output of the economy rises by five percent⁴. In World Bank Highway Projects, the return on investment is estimated to be 26%⁵.

³ Nadiri, M. Ishaq, and Theofanis P. Mamuneas (1994) *The Effects of Public Infrastructure and R&D Capital on the Cost Structure and Performance of U.S. Manufacturing Industries*. The Review of Economics and Statistics, Vol. 76, pp. 22–37.

⁴ Ibid.

⁵ Ibid.

The motorists and passengers of vehicles of existing arterials roads, primarily R-4 and R-10 will be attracted to the proposed Toll Road by virtue of savings in travel time and vehicle operating costs. A total of 93,778 vehicles (in PCU) pass through these arterial roads daily in 2014. It is for this reason that volume-capacity ratio (VCR), which is a measure of the level-of-service (LOS) that a road provides (i.e. road congestion condition), is high at 1.3 (LOS F). This is congestion level condition.

The economic costs of the Project are the capital expenditures, and operational expenses including maintenance costs pertaining to the construction and regular operations of the toll road system. To estimate the economic costs, taxes and financing costs were deducted from the investment costs used in the financial evaluation as these cost items are considered economic transfers - a mere transfer of resource from one economic agent to another without creating any value-added input. Since economic costs must be in real terms or constant prices, the accounting for inflationary impacts as embedded in price contingencies was also ignored. The remaining value from the investment costs were translated into economic costs using the following conversion factors: (i) 0.6 shadow wage rate for unskilled labor and (ii) 1.2 shadow price of foreign exchange for the foreign cost component. The project evaluation period considered is the length of the concession period, although the economic life of the major components of most transport infrastructure projects can last beyond this period. **Table 32** shows the Economic Cost of Project.

Components	Economic Cost (Php Millions)
Civil Works Cost	58,700
Design & Management Cost	6,636
ROW Acquisition	3,530
Contingency	2,935
Total	71,800

Table 32. Economic Cost of the Project

As with the economic costs, the computation of economic benefits is based on 2018 base year, and thus the future values of benefits are in constant projected 2018 prices. While there will be other project-related economic benefits, such as positive environmental externalities due to less congestion and reduction in vehicle emissions, only the reduction in vehicle operating costs and savings in travel time as economic benefits are quantified in the analysis. Thus, the estimation of the economic benefits may be considered to be on the conservative side. To arrive at an estimate of vehicle operating costs (VOCs), this study used the total VOCs per vehicle type and by speed category calculated by the JICA MMUTIS Update and Capacity Enhancement Project. The VOC estimates are based on costs incurred on a road with the following conditions: (i) Reasonably good paved surface; (ii) Section length of at least 10 km; (iii) At least 6.70 m carriageway; and (iv) Average Philippine driver behavior. The components of VOCs are distance-related and time-related costs, or "fixed" costs and "running" costs, respectively. In the VOC estimates used in the study, the running costs are related to the distance travelled consist of costs of fuel, lubricant oil, tires, spare parts, maintenance labor, and a part of capital depreciation that is distance-related. The fixed costs, on the other hand, consist of time-related depreciation of capital, crew costs, overheads and registration fees and cargo holding fees. The estimated VOCs per vehicle type under different speed categories are as shown in **Table 33**. Using the VOC-speed relationship, the VOC savings of "users" in the affected road segments were calculated. For the users, savings could arise due to higher speed compared with the case wherein the existing roads accommodate all potential commuters.

Speed (kph)	Motor	Car	ноу	Van	Jeepney	Bus	Small Truck	Big Truck	Average
5	10,569	40,833	2,751	50,508	37,123	93,469	142,009	159,187	67,056
10	6,036	23,032	15,605	29,444	20,599	53,098	75,606	87,204	38,828
20	3,692	13,848	9,654	18,481	12,603	32,400	42,023	50,906	22,951
30	2,892	10,705	7,227	13,928	10,021	25,393	30,270	36,905	17,168
40	2,459	9,111	5,989	11,303	8,568	21,909	24,690	30,256	14,286
50	2,252	8,208	5,433	10,526	8,339	20,781	21,746	27,216	13,063
60	2,210	7,982	5,190	9,970	8,763	21,028	20,128	25,503	12,597
70	2,234	7,997	5,133	10,043	9,493	21,892	19,189	24,909	12,611
80	2,306	8,181	5,219	10,430	10,349	23,148	19,274	25,703	13,076
90	2,437	8,560	5,530	11,093	11,124	24,424	19,899	27,381	13,806

Table 33. VOC Estimates per Vehicle Type (PhP/1000 km)

As in VOC reduction, travel time cost (TTC) savings are estimated to accrue from users and non-users of existing roads. Passengers that use the road facility are expected to enjoy travel time savings due to high speed and shorter travel times distance travelled compared with the alternatives. Traffic in the alternative roads and intersections are expected to enjoy travel time savings as a portion of the passenger traffic is diverted to the mass transit facility, thus decongesting the public roads and improving the average travel speed. To get an estimate of the value of productive time savings, the estimated value of time derived under the recently concluded MUCEP Study of the Department of Transportation (DTr) was utilized. **Table 34** summarizes the Economic Benefits and Costs Flows of the Project.

Year	2021	2023	2026	2031	2036	2041	2046	2051	2058
Vehicle Operating Cost Savings	0	0	11,297	19,446	25,870	33,845	43,369	55,293	77,042
Travel Time Cost Savings	0	0	2,518	4,334	5,766	7,543	9,665	12,323	17,170
Total Benefits	0	0	13,815	23,780	31,635	41,388	53,034	67,616	94,213
CAPEX	2,827	29,991	0	0	0	0	0	0	0
OPEX	0	0	1,181	1,521	2,045	2,541	3,332	4,033	5,798
Total Costs	2,827	29,991	1,181	1,521	2,045	2,541	3,332	4,033	5,798

 Table 34. Economic Benefits and Costs Flows of the Project

Year	2021	2023	2026	2031	2036	2041	2046	2051	2058
Net Benefits	-2,827	-29,991	12,634	22,259	29,590	38,848	49,702	63,583	88,415

4.2 METHODOLOGY EMPLOYED

The following methodology is used in evaluating the economic viability of the proposed Project:

a. **Net Present Value (NPV)**. This Method calculates the net present value of future economic benefits (B) and economic costs (C) using the social discount rate of 10% as recommended by NEDA in the appraisal of development projects for a certain period (t). The NPV of the Project should be greater than zero (0) for the Project to be evaluated as economically viable. The NPV is calculated using the formula:

$$NPV = \sum_{t=0}^{n} \frac{(B_t - C_t)}{(1+r)^t}$$

b. **Benefit-Cost Ratio (BCR)**. The BCR is the ratio of the economic benefits over the economic costs, all of which are expressed in net present values using the social discount rate of 10% as recommended by NEDA. The BCR should be higher than one (1.0) for the Project to be evaluated as economically viable. The BCR is computed as:

BCR = (NPV of Economic Benefits) ÷ (NPV of Economic Costs)

c. **Economic Internal Rate of Return (IRR)**. This Method determines the internal rate of return for a series of economic benefits and cost flows of the Project. The rate of return calculated by IRR is the interest rate corresponding to the net present value of economic benefits and costs that is equivalent to zero (0). The IRR of the Project should be greater than the social discount rate of 10% as recommended by NEDA for the Project to be evaluated as economically viable. The NPV is calculated using the formula:

$$\sum_{t=0}^{n} \frac{(B_t - C_t)}{(1+r)^t} = 0$$

where B_t = economic benefits at year t, t=0 is the present; C_t = economic costs at year t; r = economic internal rate of return.

4.3 ECONOMIC INTERNAL RATE OF RETURN

The Economic Internal Rate of Return (EIRR) of the Project is equal to 22.0% as computed from the previous section. This means that the EIRR of the Project is higher than the social discount rate of 10% set by the National Economic and Development Authority (NEDA) in its Memorandum Circular to all government instrumentalities, dated 30 September 2016.

4.4 BENEFIT-COST RATIO

The Economic Benefit-Cost Ratio (EBCR) of the Project is equivalent to 2.85. This signifies that the magnitude of economic benefits of the Project is more than the economic cost of the Project. In simple terms, the benefits accruing to the Project far outweigh its cost.

4.5 NET PRESENT VALUE OF NET BENEFITS

The Economic Net Present Value (ENPV) of net economic benefits of the Project amounts to Php 125.7 Billion. With all other things equal, *Ceteris paribus*, the Project is deemed economically viable by virtue of the ENPV of the Project a magnitude higher than zero. This essentially say that the economic benefits are greater than the economic costs of the Project in absolute value terms.

4.6 SENSITIVITY OF ANALYSIS

The objective of the sensitivity simulation is to determine whether the project will remain economically viable if changes in the assumptions used in the calculations were to take place due to the underlying risk factors. In this study, the impact of the underlying risk factors, and thereby the changes in projections, was examined through simulations of the EIRR assuming the following cases: (i) Case I - Increase in projected costs by 10% and 20%; (ii) Case II - Decrease in projected benefits by 10% and 20%; and (iii) Case III - Combination of Cases I and II.

Testing the sensitivity of the EIRR to increases in economic costs (capital and O&M costs), decreases in economic benefits and a combination of both was conducted using the "multiple what-if analysis" tool in MS Excel. The results are summarized in the Table below.

For the change in costs, with a 20% increase in projected costs, the EIRR becomes 12.1%. For the change in benefits, with a 20% decrease in projected benefits, the EIRR switches to 11.9%. At 20% cost increase and 20% benefits decrease, the EIRR at 11.0% remains above the NEDA Hurdle Rate of 10%.

			De	Decrease in Benefits						
Sensitivity Sco	enarios (NPV in	Php Millions)	1	2	3					
			0%	10%	20%					
· · · · · · · · · · · · · · · · · · ·	1	0%	125,691	106,313	86,934					
Increase in	2	10%	118,882	99,503	80,124					
COST	3	20%	112,072	92,693	73,315					

Table 35. Sensitivity Simulation for Economic Viability (Economic NPV and IRR)

			Decrease in Benefits						
Sensit	tivity Scenarios	(IRR)	1	2	3				
			0%	10%	20%				
T	1	0%	22.0%	20.4%	18.8%				
Increase in	2	10%	20.6%	19.1%	17.6%				
LOST	3	20%	19.4%	18.0%	16.5%				

PASIG RIVER EXPRESSWAY PROJECT ECONOMIC ANALYSIS INDICATORS

Economic Benefit-Cost Flows (Php Million)													
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Vehicle Operating Cost Savings				5,042	6,968	11,297	13,610	16,176	17,285	18,338	19,446	20,610	21,835
Travel Time Cost Savings				1,487	2,055	2,518	3,033	3,605	3,852	4,087	4,334	4,593	4,866
Total Benefits	0	0	0	6,529	9,023	13,815	16,644	19,781	21,137	22,425	23,780	25,204	26,701
CAPEX	2,827	22,782	29,991	16,200	0	0	0	0	0	0	0	0	0
OPEX				842	1,082	1,181	1,215	1,330	1,368	1,490	1,521	1,656	1,689
Total Costs	2,827	22,782	29,991	17,042	1,082	1,181	1,215	1,330	1,368	1,490	1,521	1,656	1,689
Net Benefits	-2,827	-22,782	-29,991	-10,513	7,941	12,634	15,428	18,451	19,769	20,935	22,259	23,548	25,012

Economic Viability Indicators	
Social Discount Rate	10%
NPV of Total Benefits	193,787 Php Million
NPV of Total Costs	68,096 Php Million
ENPV	125,691 Php Million
EIRR	22.0%
EBCR	2.85

Sensitivity Analysis (Php Million)

Sensitivity Analysis (Php Willion)													
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Total Benefits	0	0	0	6,529	9,023	13,815	16,644	19,781	21,137	22,425	23,780	25,204	26,701
Total Benefits - 10% Decrease	0	0	0	5,876	8,121	12,434	14,979	17,803	19,023	20,182	21,402	22,683	24,031
Total Benefits - 20% Decrease	0	0	0	5,223	7,218	11,052	13,315	15,825	16,909	17,940	19,024	20,163	21,361
Total Costs	2,827	22,782	29,991	17,042	1,082	1,181	1,215	1,330	1,368	1,490	1,521	1,656	1,689
Total Costs - 10% Increase	3,110	25,060	32,990	18,746	1,190	1,299	1,337	1,463	1,504	1,639	1,673	1,821	1,858
Total Costs - 20% Increase	3,393	27,338	35,989	20,450	1,298	1,417	1,459	1,596	1,641	1,788	1,825	1,987	2,027
Net Benefits - Scenario 1-1	-2,827	-22,782	-29,991	-10,513	7,941	12,634	15,428	18,451	19,769	20,935	22,259	23,548	25,012
Net Benefits - Scenario 1-2	-2,827	-22,782	-29,991	-11,166	7,039	11,253	13,764	16,473	17,655	18,693	19,881	21,028	22,342
Net Benefits - Scenario 1-3	-2,827	-22,782	-29,991	-11,819	6,137	9,871	12,099	14,494	15,542	16,450	17,503	18,507	19,672
Net Benefits - Scenario 2-1	-3,110	-25,060	-32,990	-12,217	7,833	12,516	15,306	18,318	19,632	20,786	22,107	23,383	24,843
Net Benefits - Scenario 2-2	-3,110	-25,060	-32,990	-12,870	6,931	11,135	13,642	16,339	17,519	18,544	19,729	20,862	22,173
Net Benefits - Scenario 2-3	-3,110	-25,060	-32,990	-13,523	6,028	9,753	11,978	14,361	15,405	16,301	17,351	18,342	19,503
Net Benefits - Scenario 3-1	-3,393	-27,338	-35,989	-13,921	7,725	12,398	15,185	18,185	19,495	20,637	21,955	23,217	24,675
Net Benefits - Scenario 3-2	-3,393	-27,338	-35,989	-14,574	6,823	11,017	13,521	16,206	17,382	18,395	19,577	20,697	22,004
Net Benefits - Scenario 3-3	-3,393	-27,338	-35,989	-15,227	5,920	9,635	11,856	14,228	15,268	16,152	17,199	18,176	19,334
Net Benefits - Scenario 3-2 Net Benefits - Scenario 3-3	-3,393 -3,393	-27,338 -27,338	-35,989 -35,989	-14,574 -15,227	6,823 5,920	11,017 9,635	13,521 11,856	16,206 14,228	17,382 15,268	18,395 16,152	19,577 17,199	20,697 18,176	

Changes in ENPV	Changes in ENPV											
				Decrease in Benefits								
Sensitivity	Scenarios (NPV in Pl	np Million)	1	2	3							
			0%	10%	20%							
	1	0%	125,691	106,313	86,934							
Increase in Cost	2	10%	118,882	99,503	80,124							
	3	20%	112,072	92,693	73,315							

Changes in EIRR												
				Decrease in Benefits	;							
Se	nsitivity Scenarios (IF	RR)	1	2	3							
			0%	10%	20%							
	1	0%	22.0%	20.4%	18.8%							
Increase in Cost	2	10%	20.6%	19.1%	17.6%							
	3	20%	19.4%	18.0%	16.5%							

SUMMARY

Economic Benefit-Cost Flows (Php Millio	n)								
Year	2021	2023	2026	2031	2036	2041	2046	2051	2058
Vehicle Operating Cost Savings	0	0	11,297	19,446	25,870	33,845	43,369	55,293	77,042
Travel Time Cost Savings	0	0	2,518	4,334	5,766	7,543	9,665	12,323	17,170
Total Benefits	0	0	13,815	23,780	31,635	41,388	53,034	67,616	94,213
CAPEX	2,827	29,991	0	0	0	0	0	0	0
OPEX	0	0	1,181	1,521	2,045	2,541	3,332	4,033	5,798
Total Costs	2,827	29,991	1,181	1,521	2,045	2,541	3,332	4,033	5,798
Net Benefits	-2,827	-29,991	12,634	22,259	29,590	38,848	49,702	63,583	88,415

PASIG RIVER EXPRESSWAY PROJECT ECONOMIC ANALYSIS INDICATORS

Economic Benefit-Cost Flows (Php Mi														
Year	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Vehicle Operating Cost Savings	23,123	24,462	25,870	27,350	28,906	30,543	32,153	33,845	35,624	37,494	39,460	41,366	43,369	45,474
Travel Time Cost Savings	5,153	5,452	5,766	6,095	6,442	6,807	7,166	7,543	7,939	8,356	8,794	9,219	9,665	10,135
Total Benefits	28,276	29,914	31,635	33,445	35,349	37,350	39,319	41,388	43,564	45,850	48,255	50,585	53,034	55,608
CAPEX	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OPEX	1,841	1,874	2,045	2,081	2,266	2,305	2,507	2,541	2,763	2,800	3,047	3,072	3,332	3,359
Total Costs	1,841	1,874	2,045	2,081	2,266	2,305	2,507	2,541	2,763	2,800	3,047	3,072	3,332	3,359
Net Benefits	26,435	28,039	29,590	31,364	33,082	35,045	36,812	38,848	40,801	43,050	45,208	47,513	49,702	52,250

Sensitivity Analysis (Php Million)														
Year	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Total Benefits	28,276	29,914	31,635	33,445	35,349	37,350	39,319	41,388	43,564	45,850	48,255	50,585	53,034	55,608
Total Benefits - 10% Decrease	25,448	26,922	28,472	30,101	31,814	33,615	35,387	37,250	39,207	41,265	43,429	45,526	47,731	50,048
Total Benefits - 20% Decrease	22,621	23,931	25,308	26,756	28,279	29,880	31,455	33,111	34,851	36,680	38,604	40,468	42,427	44,487
Total Costs	1,841	1,874	2,045	2,081	2,266	2,305	2,507	2,541	2,763	2,800	3,047	3,072	3,332	3,359
Total Costs - 10% Increase	2,025	2,062	2,250	2,289	2,493	2,536	2,757	2,795	3,039	3,080	3,351	3,379	3,665	3,695
Total Costs - 20% Increase	2,209	2,249	2,454	2,497	2,720	2,766	3,008	3,049	3,316	3,360	3,656	3,686	3,998	4,031
Net Benefits - Scenario 1-1	26,435	28,039	29,590	31,364	33,082	35,045	36,812	38,848	40,801	43,050	45,208	47,513	49,702	52,250
Net Benefits - Scenario 1-2	23,607	25,048	26,427	28,020	29,547	31,310	32,880	34,709	36,444	38,465	40,382	42,455	44,399	46,689
Net Benefits - Scenario 1-3	20,780	22,057	23,263	24,675	26,013	27,575	28,949	30,570	32,088	33,880	35,557	37,396	39,095	41,128
Net Benefits - Scenario 2-1	26,251	27,852	29,386	31,156	32,856	34,814	36,562	38,593	40,524	42,770	44,903	47,206	49,369	51,914
Net Benefits - Scenario 2-2	23,423	24,861	26,222	27,812	29,321	31,079	32,630	34,455	36,168	38,185	40,078	42,147	44,066	46,353
Net Benefits - Scenario 2-3	20,596	21,869	23,059	24,467	25,786	27,344	28,698	30,316	31,812	33,600	35,252	37,089	38,762	40,792
Net Benefits - Scenario 3-1	26,067	27,664	29,181	30,948	32,629	34,584	36,311	38,339	40,248	42,490	44,599	46,899	49,036	51,578
Net Benefits - Scenario 3-2	23,239	24,673	26,018	27,604	29,094	30,849	32,379	34,201	35,892	37,905	39,773	41,840	43,732	46,017
Net Benefits - Scenario 3-3	20,411	21,682	22,854	24,259	25,559	27,114	28,447	30,062	31,535	33,320	34,948	36,782	38,429	40,456

PASIG RIVER EXPRESSWAY PROJECT ECONOMIC ANALYSIS INDICATORS

Economic Benefit-Cost Flows (Php Mi											
Year	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058
Vehicle Operating Cost Savings	47,687	50,016	52,587	55,293	58,142	61,142	64,302	67,494	70,856	74,398	77,042
Travel Time Cost Savings	10,628	11,147	11,720	12,323	12,958	13,627	14,331	15,042	15,792	16,581	17,170
Total Benefits	58,315	61,162	64,307	67,616	71,100	74,769	78,633	82,536	86,648	90,979	94,213
CAPEX	0	0	0	0	0	0	0	0	0	0	0
OPEX	3,639	3,668	3,988	4,033	4,392	4,441	4,836	4,877	5,293	5,336	5,798
Total Costs	3,639	3,668	3,988	4,033	4,392	4,441	4,836	4,877	5,293	5,336	5,798
Net Benefits	54,677	57,494	60,319	63,583	66,708	70,328	73,796	77,660	81,355	85,643	88,415

Sensitivity Analysis (Php Million)											
Year	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	20
Total Benefits	58,315	61,162	64,307	67,616	71,100	74,769	78,633	82,536	86,648	90,979	
Total Benefits - 10% Decrease	52,484	55,046	57,876	60,855	63,990	67,292	70,769	74,283	77,983	81,881	
Total Benefits - 20% Decrease	46,652	48,930	51,445	54,093	56,880	59,815	62,906	66,029	69,318	72,783	
Total Costs	3,639	3,668	3,988	4,033	4,392	4,441	4,836	4,877	5,293	5,336	
Total Costs - 10% Increase	4,002	4,035	4,387	4,436	4,831	4,885	5,320	5,364	5,822	5,870	
Total Costs - 20% Increase	4,366	4,402	4,785	4,840	5,270	5,329	5,804	5,852	6,351	6,403	
Net Benefits - Scenario 1-1	54,677	57,494	60,319	63,583	66,708	70,328	73,796	77,660	81,355	85,643	
Net Benefits - Scenario 1-2	48,845	51,378	53,888	56,822	59,598	62,851	65,933	69,406	72,690	76,545	
Net Benefits - Scenario 1-3	43,014	45,262	47,458	50,060	52,488	55,374	58,070	61,152	64,026	67,448	
Net Benefits - Scenario 2-1	54,313	57,128	59,920	63,180	66,269	69,884	73,313	77,172	80,826	85,110	
Net Benefits - Scenario 2-2	48,481	51,011	53,489	56,418	59,159	62,407	65,449	68,918	72,161	76,012	
Net Benefits - Scenario 2-3	42,650	44,895	47,059	49,657	52,049	54,930	57,586	60,665	63,496	66,914	
Net Benefits - Scenario 3-1	53,949	56,761	59,521	62,777	65,830	69,440	72,829	76,684	80,297	84,576	
Net Benefits - Scenario 3-2	48,118	50,645	53,091	56,015	58,720	61,963	64,966	68,431	71,632	75,478	
Net Benefits - Scenario 3-3	42,286	44,528	46,660	49,253	51,610	54,486	57,102	60,177	62,967	66,380	

8				
9	4	.2	1	3
8	4	,7	9	1
7	5,	,3	7	0
	5,	,7	9	8
	6	,3	7	8
	6	,9	5	8
8	8	,4	1	5
7	8	,9	9	3
6	9	,5	7	2
8	7,	,8	3	5
7	8	,4	1	3
6	8,	,9	9	2
8	7,	,2	5	5
7	7	,8	3	4
6	8	,4	1	2

CAPEX Economic Cost (Php Million)

Cost Components	Financial Project	Foreign Exchange	Local Cost	Upskilled Labor	Local Component	Local Component	Imported Component
oost oomponents	Cost	Cost	LUCAI COSI		Cost	Тах	Cost
Civil Works Cost	66,283	26,513	39,770	3,977	35,793	4,295	26,513
Design & Management Cost	7,788	0	7,788	779	7,009	841	0
ROW Acquisition	4,143	0	4,143	414	3,728	447	0
Contingency	3,314	1,326	1,988	199	1,790	215	1,326
Total	81,528	27,839	53,689	5,369	48,320	5,798	27,839

2028

2029

CAPEX Economic Cost Summary (Php Million)

Cost Components	Economic Cost
Civil Works Cost	58,700
Design & Management Cost	6,636
ROW Acquisition	3,530
Contingency	2,935
Total	71,800

CAPEX Costs (Php Million)	
Cost Items	Total Cost
Construction Cost	66,283
Facilities for the Engineer	497
Other General Requirements	1,657
Traffic Management Cost	994
Utility Cost	331
Administrative & Consultancy Cost	4,308
Contingency	3,314
ROW	4,143
Total Project Cost before Financing	81,528

CAPEX Schedule (Php Million)	2021	2022	2023	2024	2025	2026	2027
CAPEX	3,210	25,868	34,054	18,395			
Total	3,210	25,868	34,054	18,395			

CAPEX	3,210	25,868	34,054	18,395					
Total	3,210	25,868	34,054	18,395					
OPEX Schedule (Php Million)	2021	2022	2023	2024	2025	2026	2027	2028	2029
General and Administrative Expenses				97	137	154	159	179	185
Merchant Fee				48	69	77	80	89	92
0&M				339	480	538	558	626	647
Periodic Maintenance				93	132	148	153	172	178
Insurance				265	265	265	265	265	265
Total				842	1,082	1,181	1,215	1,330	1,368

Imported Component Duty	Cost Components	Forex Cost	Unskilled Labor	Local Costs	Economic Project Cost
5,833	Civil Works Cost	24,816	2,386	31,497	58,700
0	Design & Management Cost	0	467	6,168	6,636
0	ROW Acquisition	0	249	3,281	3,530
292	Contingency	1,241	119	1,575	2,935
6,125	Total	26,057	3,221	42,522	71,800

CAPEX Schedule (Php Million)	2030	2031	2032	2033	2034	2035	203
CAPEX							
Total							

OPEX Schedule (Php Million)	2030	2031	2032	2033	2034	2035	2036
General and Administrative Expenses	206	211	233	239	264	270	
Merchant Fee	103	105	117	119	132	135	
O&M	719	737	817	836	925	945	
Periodic Maintenance	197	202	224	229	254	259	
Insurance	265	265	265	265	265	265	
Total	1,490	1,521	1,656	1,689	1,841	1,874	

0.880682927 Economic Cost Factor

6	2037	2038
6	2037	2038
299	305	336
149	152	168
1,045	1,066	1,175
287	293	322
265	265	265
2,045	2,081	2,266

r

CAPEX Schedule (Php Million)	2039	2040	2041	2042	2043	2044	204
CAPEX							
Total							

CAPEX Schedule (Php Million) CAPEX Total	2039	2040	2041	2042	2043	2044	2045	2046	2047
OPEX Schedule (Php Million)	2039	2040	2041	2042	2043	2044	2045	2046	2047
General and Administrative Expenses	342	376	382	419	425	467	471	515	519
Merchant Fee	171	188	191	210	213	233	235	257	260
0&M	1,198	1,316	1,336	1,467	1,489	1,634	1,648	1,801	1,817
Periodic Maintenance	329	361	367	402	408	448	452	494	498
Insurance	265	265	265	265	265	265	265	265	265
Total	2,305	2,507	2,541	2,763	2,800	3,047	3,072	3,332	3,359

CAPEX Schedule (Php Million)	2048	2049	2050	2051	2052	2053	205
CAPEX							
Total							

CAPEX Schedule (Php Million) CAPEX	2048	2049	2050	2051	2052	2053	2054	2055	2056
Total									
OPEX Schedule (Php Million)	2048	2049	2050	2051	2052	2053	2054	2055	2056
General and Administrative Expenses	566	571	625	632	692	701	767	774	844
Merchant Fee	283	285	312	316	346	350	384	387	422
0&M	1,981	1,998	2,186	2,213	2,423	2,452	2,685	2,708	2,952
Periodic Maintenance	543	548	600	607	665	673	736	743	810
Insurance	265	265	265	265	265	265	265	265	265
Total	3,639	3,668	3,988	4,033	4,392	4,441	4,836	4,877	5,293

CAPEX Schedule (Php Million)	2057	2058
CAPEX		
Tatal		

Total

OPEX Schedule (Php Million)	2057	2058	
General and Administrative Expenses	851	928	
Merchant Fee	425	464	
0&M	2,978	3,249	
Periodic Maintenance	817	891	
Insurance	265	265	
Total	5,336	5,798	

PASIG RIVER EXPRESSWAY PROJECT BASE AND FORECAST DEMAND

Assumptions/Derivations	
Traffic Growth Rate	3.5%
R-4 length (km)	8
R-4 VCR	1.21
R-4 average speed (kph)	12.50
R-4 base volume (pcu-km)	295,000
R-4 base volume (pcu)	39,333
R-4 base volume (pax-km)	975,000
R-4 travel time in mins	36
R-4 travel time in Php	65
R-5 length (km)	5
R-5 base volume (pcu-km)	294,000
R-5 base volume (pcu)	54,444
R-5 base volume (pax-km)	868,000
R-5 VCR	1.30
R-5 average speed (kph)	12.50
R-5 travel time in min	26
R-5 travel time in Php	47
Project length (km)	19
Project average speed (kph)	60
Project travel time (min)	19
Project travel cost (Php)	242

Arterial Road	Distance (km)	VCR	Max Speed (kph)	Max Time (min)
R-4	8	1.00	50	9
R-5	5	1.00	50	6
				α
				β

Traffic Diversion Curve			
Project Section	Distance (km)	Proj Trip Time (min)	Arterial Trip Time (min)
R10 to MMSS3-Plaza Azul	6	6	36
MMSS3-San Juan River to C-5	7	7	26
C-5 to SEMME	6	6	36
Average	6.46	6.46	32.64

Base Vehicle Demand at Arterial Road (PCU)	2023	2024	2025	2026	2027	2028	2029	2030	2031
Arterial Road	-	68,324	78,576	81,793	85,038	88,313	91,617	94,370	97,156
Forecast Vehicle Demand at Project (PCU)	2023	2024	2025	2026	2027	2028	2029	2030	2031
R10 to MMSS3-Plaza Azul		40,475	41,397	42,320	43,242	44,165	45,087	45,945	46,803
MMSS3-San Juan River to C-5		88,033	110,997	116,355	121,713	127,071	132,429	136,399	140,369
C-5 to SEMME		41,839	43,513	45,253	47,064	48,946	50,904	52,940	55 <i>,</i> 058
Average		56,782	65,302	67,976	70,673	73,394	76,140	78,428	80,743
Forecast Vehicle Demand at Arterial (PCU)	2023	2024	2025	2026	2027	2028	2029	2030	2031
Forecast at Arterial w/o Project	-	68,324	78,576	81,793	85,038	88,313	91,617	94,370	97,156
Forecast at Arterial w/ Project	-	11,542	13,274	13,817	14,365	14,919	15,477	15,942	16,412

Time at VCR (min)	Speed at VCR (kph)
36	12.50
26	12.50
3	
4	

TripTime Ratio	% Diversion (%)
0.16	86.25
0.28	77.97
0.18	85.11
0.21	83.11

Base Vehicle Demand at Arterial Road (PCU)	2032	2033	2034	2035	2036	2037	2038	2039	2040
Arterial Road	99,976	102,831	105,723	108,588	111,494	114,440	117,430	120,464	123,121
Forecast Vehicle Demand at Project (PCU)	2032	2033	2034	2035	2036	2037	2038	2039	2040
R10 to MMSS3-Plaza Azul	47,662	48,520	49,378	50,288	51,199	52,109	53,020	53,930	54,709
MMSS3-San Juan River to C-5	144,339	148,309	152,279	156,035	159,792	163,549	167,305	171,062	173,893
C-5 to SEMME	57,260	59,551	61,933	64,410	66,986	69,666	72,452	75,350	78,364
Average	83,087	85,460	87,863	90,245	92,659	95,108	97,592	100,114	102,322
Forecast Vehicle Demand at Arterial (PCU)	2032	2033	2034	2035	2036	2037	2038	2039	2040
Forecast at Arterial w/o Project	99,976	102,831	105,723	108,588	111,494	114,440	117,430	120,464	123,121
Forecast at Arterial w/ Project	16,889	17,371	17,860	18,344	18,835	19,332	19,837	20,350	20,799

Base Vehicle Demand at Arterial Road (PCU)	2041	2042	2043	2044	2045	2046	2047	2048	2049
Arterial Road	125,826	128,582	131,390	134,252	136,636	139,079	141,583	144,150	146,784
Forecast Vehicle Demand at Project (PCU)	2041	2042	2043	2044	2045	2046	2047	2048	2049
R10 to MMSS3-Plaza Azul	55,487	56,266	57,044	57,823	58,378	58,933	59,489	60,044	60,599
MMSS3-San Juan River to C-5	176,725	179,557	182,388	185,220	186,942	188,663	190,385	192,106	193,828
C-5 to SEMME	81,499	84,759	88,149	91,675	95,342	99,156	103,122	107,247	111,537
Average	104,570	106,860	109,194	111,573	113,554	115,584	117,665	119,799	121,988
Forecast Vehicle Demand at Arterial (PCU)	2041	2042	2043	2044	2045	2046	2047	2048	2049
Forecast at Arterial w/o Project	125,826	128,582	131,390	134,252	136,636	139,079	141,583	144,150	146,784
Forecast at Arterial w/ Project	21,256	21,721	22,196	22,679	23,082	23,494	23,917	24,351	24,796

Base Vehicle Demand at Arterial Road (PCU)	2050	2051	2052	2053	2054	2055	2056	2057	2058
Arterial Road	149,835	152,958	156,155	159,429	162,784	165,888	169,079	172,361	173,288
Forecast Vehicle Demand at Project (PCU)	2050	2051	2052	2053	2054	2055	2056	2057	2058
R10 to MMSS3-Plaza Azul	61,252	61,905	62,559	63,212	63,865	64,282	64,698	65,115	65,531
MMSS3-San Juan River to C-5	196,320	198,812	201,304	203,796	206,288	208,183	210,077	211,972	213,867
C-5 to SEMME	115,998	120,638	125,464	130,482	135,702	141,130	146,775	152,646	152,646
Average	124,523	127,119	129,775	132,497	135,285	137,865	140,517	143,244	144,015
Forecast Vehicle Demand at Arterial (PCU)	2050	2051	2052	2053	2054	2055	2056	2057	2058
Forecast at Arterial w/o Project	149,835	152,958	156,155	159,429	162,784	165,888	169,079	172,361	173,288
Forecast at Arterial w/ Project	25,312	25,839	26,379	26,932	27,499	28,023	28,562	29,117	29,273

PASIG RIVER EXPRESSWAY PROJECT VOC & TTC SAVINGS SUMMARY

VOC Savings (Php Million)																	
voc	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Without Project	0	21,490	25,456	27,294	29,228	31,264	33,406	35,443	37,584	39 <i>,</i> 835	42,201	44,690	47,278	49,999	52 <i>,</i> 860	55 <i>,</i> 869	59 <i>,</i> 031
With Project	0	2,716	3,217	3,449	3,693	3,951	4,221	4,479	4,749	5 <i>,</i> 034	5,333	5,647	5,974	6,318	6,680	7,060	7 <i>,</i> 459
With Project (Toll Road)	0	10,371	12,285	13,172	14,105	15,088	16,122	17,105	18,138	19,224	20,366	21,567	22,816	24,130	25,510	26,962	28,488
Total VOC Savings	0	8,404	9,954	14,122	15,122	16,176	17,285	18,338	19,446	20,610	21,835	23,123	24,462	25 <i>,</i> 870	27,350	28,906	30,543
w/ ramp up factor	0.5	0.6	0.7	0.8	0.9	1	1	1	1	1	1	1	1	1	1	1	1
Normalized VOC Savings	0	5,042	6,968	11,297	13,610	16,176	17,285	18,338	19,446	20,610	21,835	23,123	24,462	25,870	27,350	28,906	30,543

TTC Savings (Php Million)																	
TTC	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Without Project	0	3,668	4,345	4,658	4,988	5,336	5,702	6,049	6,415	6,799	7,203	7,627	8,069	8,534	9,022	9,535	10,075
With Project	0	413	489	525	562	601	642	681	722	766	811	859	909	961	1,016	1,074	1,135
With Project (Toll Road)	0	777	920	986	1,056	1,130	1,207	1,281	1,358	1,440	1,525	1,615	1,709	1,807	1,910	2,019	2,134
Total TTC Savings	0	2,478	2,935	3,147	3,370	3,605	3,852	4,087	4,334	4,593	4,866	5,153	5,452	5,766	6,095	6,442	6,807
w/ ramp up factor	0.5	0.6	0.7	0.8	0.9	1	1	1	1	1	1	1	1	1	1	1	1
Normalized TTC Savings	0	1,487	2,055	2,518	3,033	3,605	3,852	4,087	4,334	4,593	4,866	5,153	5,452	5,766	6,095	6,442	6,807

SUMMARY								
VOC Savings (Php Million)								
VOC	2023	2025	2030	2035	2040	2045	2050	2055
Without Project	0	25,456	35,443	47,278	62,143	79,949	101,636	130,448
With Project	0	3,217	4,479	5,974	7,853	10,103	12,843	16,484
With Project (Toll Road)	0	12,285	17,105	22,816	29,990	38,583	49,050	62,954
Total VOC Savings	0	9,954	18,338	24,462	32,153	41,366	52,587	67,494

TTC Savings (Php Million)								
ттс	2023	2025	2030	2035	2040	2045	2050	2055
Without Project	0	4,345	6,049	8,069	10,606	13,645	17,347	22,264
With Project	0	489	681	909	1,194	1,537	1,954	2,507
With Project (Toll Road)	0	920	1,281	1,709	2,246	2,890	3,673	4,715
Total TTC Savings	0	2,935	4,087	5,452	7,166	9,219	11,720	15,042

PASIG RIVER EXPRESSWAY PROJECT VOC & TTC SAVINGS SUMMARY

VOC Savings (Php Million)																	
voc	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
Without Project	62,143	65,414	68,852	72,466	76,266	79,949	83,820	87 <i>,</i> 889	92,167	96,667	101,636	106,867	112,374	118,172	124,279	130,448	136,946
With Project	7,853	8,266	8,700	9,157	9,637	10,103	10,592	11,106	11,646	12,215	12,843	13,504	14,200	14,932	15,704	16,484	17,305
With Project (Toll Road)	29 <i>,</i> 990	31,569	33,228	34,972	36,806	38,583	40,451	42,415	44,480	46,651	49,050	51,574	54,231	57 <i>,</i> 030	59,977	62,954	66,090
Total VOC Savings	32,153	33,845	35,624	37,494	39,460	41,366	43,369	45,474	47,687	50,016	52 <i>,</i> 587	55,293	58,142	61,142	64,302	67,494	70,856
w/ ramp up factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Normalized VOC Savings	32,153	33,845	35,624	37,494	39,460	41,366	43,369	45,474	47,687	50,016	52,587	55,293	58,142	61,142	64,302	67,494	70,856

TTC Savings (Php Million)																	
ттс	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
Without Project	10,606	11,165	11,751	12,368	13,017	13,645	14,306	15,000	15,731	16,499	17,347	18,240	19,179	20,169	21,211	22,264	23,373
With Project	1,194	1,257	1,323	1,393	1,466	1,537	1,611	1,689	1,772	1,858	1,954	2,054	2,160	2,271	2,389	2,507	2,632
With Project (Toll Road)	2,246	2,364	2,488	2,619	2,756	2,890	3,029	3,176	3,331	3,494	3,673	3,862	4,061	4,271	4,492	4,715	4,950
Total TTC Savings	7,166	7,543	7,939	8,356	8,794	9,219	9,665	10,135	10,628	11,147	11,720	12,323	12,958	13,627	14,331	15,042	15,792
w/ ramp up factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Normalized TTC Savings	7,166	7,543	7,939	8,356	8,794	9,219	9,665	10,135	10,628	11,147	11,720	12,323	12,958	13,627	14,331	15,042	15,792

PASIG RIVER EXPRESSWAY PROJECT VOC & TTC SAVINGS SUMMARY

VOC Savings (Php Million)		
VOC	2057	2058
Without Project	143,792	148,903
With Project	18,170	18,816
With Project (Toll Road)	69,394	71,860
Total VOC Savings	74,398	77,042
w/ ramp up factor	1	1
Normalized VOC Savings	74,398	77,042

TTC Savings (Php Million)		
ттс	2057	2058
Without Project	24,542	25,414
With Project	2,764	2,862
With Project (Toll Road)	5,197	5 <i>,</i> 382
Total TTC Savings	16,581	17,170
w/ ramp up factor	1	1
Normalized TTC Savings	16,581	17,170

PASIG RIVER EXPRESSWAY PROJECT VOC OF ARTERIAL ROAD WITHOUT PROJECT

AADT Forecast (Veh/day)									
Section	Link Length (km)	2023	2024	2025	2026	2027	2028	2029	2030
Arterial Road	19	0	68,324	78,576	81,793	85,038	88,313	91,617	94,370
AADT Forecast (PCU-km)		2022	2024	2025	2020	2027	2020	2020	2020
Autorial Deed		2023	2024	2025	2026	2027	2028	2029	2030
		0	1,947,242	2,239,425	2,331,112	2,423,596	2,516,907	2,611,078	2,089,545
	VOC Unit Cost (Php/1000k	m)							
	kph	motor	car	hov	van	jeepney	bus	small truck	big truck
	5	10,569	40,833	2,751	50,508	37,123	93,469	142,009	159,187
	10	6,036	23,032	15,605	29,444	20,599	53,098	75,606	87,204
	20	3,692	13,848	9,654	18,481	12,603	32,400	42,023	50,906
	30	2,892	10,705	7,227	13,928	10,021	25,393	30,270	36,905
	40	2,459	9,111	5,989	11,303	8,568	21,909	24,690	30,256
	50	2,252	8,208	5,433	10,526	8,339	20,781	21,746	27,216
	60	2,210	7,982	5,190	9,970	8,763	21,028	20,128	25,503
	70	2,234	7,997	5,133	10,043	9,493	21,892	19,189	24,909
	80	2,306	8,181	5,219	10,430	10,349	23,148	19,274	25,703
	90	2,437	8,560	5,530	11,093	11,124	24,424	19,899	27,381
VOC Unit Cost (Php/1000km)	inflation	3.0%	3.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	ave voc	2016	2017	2018	2019	2020	2021	2022	2023
5	67,056	69,068	71,140	73,985	76,205	78,491	80,846	83,271	85,769
10	38,828	39,993	41,193	42,840	44,126	45,449	46,813	48,217	49,664
20	22,951	23,639	24,349	25,323	26,082	26,865	27,671	28,501	29,356
30	17,168	17,683	18,213	18,942	19,510	20,095	20,698	21,319	21,959
40	14,286	14,714	15,156	15,762	16,235	16,722	17,223	17,740	18,272
50	13,063	13,455	13,858	14,412	14,845	15,290	15,749	16,221	16,708
60	12,597	12,975	13,364	13,898	14,315	14,745	15,187	15,643	16,112
70	12,611	12,990	13,379	13,914	14,332	14,762	15,205	15,661	16,131
80	13,076	13,469	13,873	14,427	14,860	15,306	15,/65	16,238	16,/25
90	13,806	14,220	14,647	15,233	15,690	16,160	16,645	17,144	17,659
VOC (Php Million) @ 20 kph									
Section		2023	2024	2025	2026	2027	2028	2029	2030
Arterial Road		0	21,490	25,456	27,294	29,228	31,264	33,406	35,443
Total		0	21,490	25,456	27,294	29,228	31,264	33,406	35,443
	SUI	MMARY							
	AAI	OT Forecast (PCU)							
	Sec	tion	2023	2026	2031	2036	2041	2046	2051
	Arte	erial Road	-	81,793	97,156	111,494	125,826	139,079	152,958

SUMMARY					
AADT Forecast (PCU)					
Section	2023	2026	2031	2036	2041
Arterial Road	-	81,793	97,156	111,494	12

PASIG RIVER EXPRESSWAY PROJECT VOC OF ARTERIAL ROAD WITHOUT PROJECT

AADT Forecast (Veh/day)									
Section	2031	2032	2033	2034	2035	2036	2037	2038	2039
Arterial Road	97,156	99,976	102,831	105,723	108,588	111,494	114,440	117,430	120,464
AADT Forecast (PCU-km)									
Section	2031	2032	2033	2034	2035	2036	2037	2038	2039
Arterial Road	2,768,942	2,849,307	2,930,680	3,013,100	3,094,766	3,177,566	3,261,543	3,346,746	3,433,222

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	2024	2025	2026	2027	2028	2029	2030	2031	2032
5	88,342	90,993	93,723	96,534	99,430	102,413	105,486	108,650	111,910
10	51,154	52,688	54,269	55,897	57,574	59,301	61,080	62,912	64,800
20	30,236	31,144	32,078	33,040	34,031	35,052	36,104	37,187	38,303
30	22,617	23,296	23,995	24,715	25,456	26,220	27,006	27,816	28,651
40	18,820	19,385	19,967	20,566	21,183	21,818	22,473	23,147	23,841
50	17,209	17,726	18,257	18,805	19,369	19,950	20,549	21,165	21,800
60	16,595	17,093	17,606	18,134	18,678	19,239	19,816	20,410	21,023
70	16,615	17,113	17,626	18,155	18,700	19,261	19,839	20,434	21,047
80	17,227	17,744	18,276	18,825	19,389	19,971	20,570	21,187	21,823
90	18,189	18,734	19,296	19,875	20,471	21,086	21,718	22,370	23,041
VOC (Php Million) @ 20 kph									
Section	2031	2032	2033	2034	2035	2036	2037	2038	2039
Arterial Road	37,584	39,835	42,201	44,690	47,278	49,999	52,860	55,869	59,031

VOC (Php Million) @ 20 kph										
Section	2031	2032	2033	2034	2035	2036	2037	2038	2039	
Arterial Road	37,584	39,835	42,201	44,690	47,278	49,999	52,860	55,869	59,031	
Total	37,584	39,835	42,201	44,690	47,278	49,999	52,860	55,869	59,031	


AADT Forecast (Veh/	/day)									
	Section	2040	2041	2042	2043	2044	2045	2046	2047	2048
Arterial Road		123,121	125,826	128,582	131,390	134,252	136,636	139,079	141,583	144,150
AADT Forecast (PCU-	-km)									
	Section	2040	2041	2042	2043	2044	2045	2046	2047	2048
Arterial Road		3,508,945	3,586,045	3,664,579	3,744,603	3,826,178	3,894,121	3,963,740	4,035,103	4,108,280

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	2033	2034	2035	2036	2037	2038	2039	2040	2041
5	115,267	118,725	122,287	125,955	129,734	133,626	137,635	141,764	146,017
10	66,744	68,746	70,809	72,933	75,121	77,374	79,696	82,087	84,549
20	39,452	40,635	41,854	43,110	44,403	45,735	47,107	48,521	49,976
30	29,510	30,396	31,308	32,247	33,214	34,211	35,237	36,294	37,383
40	24,556	25,293	26,052	26,833	27,638	28,468	29,322	30,201	31,107
50	22,454	23,128	23,822	24,536	25,272	26,031	26,811	27,616	28,444
60	21,653	22,303	22,972	23,661	24,371	25,102	25,855	26,631	27,430
70	21,678	22,329	22,998	23,688	24,399	25,131	25,885	26,662	27,461
80	22,478	23,152	23,846	24,562	25,299	26,058	26,839	27,645	28,474
90	23,732	24,444	25,177	25,933	26,711	27,512	28,337	29,187	30,063
VOC (Php Million) @ 20 kph									
Section	2040	2041	2042	2043	2044	2045	2046	2047	2048
Arterial Road	62,143	65,414	68,852	72,466	76,266	79,949	83,820	87,889	92,167
Total	62,143	65,414	68,852	72,466	76,266	79,949	83,820	87,889	92,167

AADT Forecast (Veh/day	y)									
Se	ection	2049	2050	2051	2052	2053	2054	2055	2056	2057
Arterial Road		146,784	149,835	152,958	156,155	159,429	162,784	165,888	169,079	172,361
AADT Forecast (PCU-km)	1)									
Se	ection	2049	2050	2051	2052	2053	2054	2055	2056	2057
Arterial Road		4,183,343	4,270,297	4,359,290	4,450,406	4,543,727	4,639,344	4,727,812	4,818,761	4,912,292

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	2042	2043	2044	2045	2046	2047	2048	2049	2050
5	150,397	154,909	159,556	164,343	169,273	174,352	179,582	184,970	190,519
10	87,086	89 <i>,</i> 698	92,389	95,161	98,016	100,956	103,985	107,104	110,317
20	51,475	53,020	54,610	56,249	57,936	59,674	61,464	63,308	65,208
30	38,504	39,660	40,849	42,075	43,337	44,637	45,976	47,356	48,776
40	32,041	33,002	33,992	35,012	36,062	37,144	38,258	39,406	40,588
50	29,298	30,176	31,082	32,014	32,975	33,964	34,983	36,032	37,113
60	28,253	29,100	29,973	30,872	31,799	32,753	33,735	34,747	35,790
70	28,285	29,134	30,008	30,908	31,835	32,790	33,774	34,787	35,831
80	29,328	30,208	31,114	32,048	33,009	33,999	35,019	36,070	37,152
90	30,965	31,894	32,851	33,836	34,851	35,897	36,974	38,083	39,225
VOC (Php Million) @ 20 kph									
Section	2049	2050	2051	2052	2053	2054	2055	2056	2057
Arterial Road	96,667	101,636	106,867	112,374	118,172	124,279	130,448	136,946	143,792
Total	96,667	101,636	106,867	112,374	118,172	124,279	130,448	136,946	143,792

AADT Forecast (Veh/day)								
Section	2058							
Arterial Road	173,288							

AADT Forecast (PCU-km)										
Section	2058									
Arterial Road	4,938,711									

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	2051	2052	2053	2054	2055	2056	2057	2058
5	196,234	202,121	208,185	214,430	220,863	227,489	234,314	241,343
10	113,627	117,036	120,547	124,163	127,888	131,725	135,676	139,747
20	67,164	69,179	71,254	73,392	75,593	77,861	80,197	82,603
30	50,240	51,747	53,299	54,898	56,545	58,241	59,989	61,788
40	41,806	43,060	44,352	45,682	47,053	48,464	49,918	51,416
50	38,227	39,373	40,555	41,771	43,024	44,315	45,645	47,014
60	36,863	37,969	39,108	40,282	41,490	42,735	44,017	45,337
70	36,906	38,013	39,153	40,328	41,538	42,784	44,067	45,389
80	38,267	39,415	40,597	41,815	43,069	44,361	45,692	47,063
90	40,402	41,614	42,863	44,148	45,473	46,837	48,242	49,690

VOC (Php Million) @ 20 kph										
Section	2058									
Arterial Road	148,903									
Total	148,903									

AADT Forecast (Veh/day)									
Section	Link Length (km)	2023	2024	2025	2026	2027	2028	2029	2030
Arterial Road	19	-	11,542	13,274	13,817	14,365	14,919	15,477	15,942
AADT Forecast (PCU-km)									
Section		2023	2024	2025	2026	2027	2028	2029	2030
Arterial Road		0	328,946	378,305	393,793	409,416	425,179	441,088	454,343
	VOC	Unit Cost (Php/1000k	m)						
		kph	motor	car	hov	van	jeepney	bus	small truck
		5	10,569	40,833	2,751	50,508	37,123	93,469	142,009
		10	6,036	23,032	15,605	29,444	20,599	53,098	75,606
		20	3,692	13,848	9,654	18,481	12,603	32,400	42,023
		30	2,892	10,705	7,227	13,928	10,021	25,393	30,270
		40	2,459	9,111	5,989	11,303	8,568	21,909	24,690
		50	2,252	8,208	5,433	10,526	8,339	20,781	21,746
		60	2,210	7,982	5,190	9,970	8,763	21,028	20,128
		70	2,234	7,997	5,133	10,043	9,493	21,892	19,189
		80	2,306	8,181	5,219	10,430	10,349	23,148	19,274
		90	2,437	8,560	5,530	11,093	11,124	24,424	19,899
VOC Unit Cost (Php/1000km)	inflation	3.0%	3.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	ave voc	2016	2017	2018	2019	2020	2021	2022	2023
5	67,056	69,068	71,140	73,985	76,205	78,491	80,846	83,271	85,769
10	38,828	39,993	41,193	42,840	44,126	45 <i>,</i> 449	46,813	48,217	49,664
20	22,951	23,639	24,349	25,323	26,082	26,865	27,671	28,501	29,356
30	17,168	17,683	18,213	18,942	19,510	20,095	20,698	21,319	21,959
40	14,286	14,714	15,156	15,762	16,235	16,722	17,223	17,740	18,272
50	13,063	13,455	13,858	14,412	14,845	15,290	15,749	16,221	16,708
60	12,597	12,975	13,364	13,898	14,315	14,745	15,187	15,643	16,112
70	12,611	12,990	13,379	13,914	14,332	14,762	15,205	15,661	16,131
80	13,076	13,469	13,873	14,427	14,860	15,306	15,765	16,238	16,725
90	13,806	14,220	14,647	15,233	15,690	16,160	16,645	17,144	17,659
VOC (Phy Million) @20kph									
Section		2023	2024	2025	2026	2027	2028	2029	2030
Arterial Road		0	2,716	3,217	3,449	3,693	3,951	4,221	4,479
Total		0	2,716	3,217	3,449	3,693	3,951	4,221	4,479

SUMMARY								
AADT Forecast (PCU)								
Section	2023	2026	2031	2036	2041	2046	2051	2056
Arterial Road	-	13,817	16,412	18,835	21,256	23,494	25,839	28,562

AADT Forecast (Veh/day)									
Section	2031	2032	2033	2034	2035	2036	2037	2038	2039
Arterial Road	16,412	16,889	17,371	17,860	18,344	18,835	19,332	19,837	20,350
AADT Forecast (PCU-km)									
Section	2031	2032	2033	2034	2035	2036	2037	2038	2039
Arterial Road	467,756	481,332	495,078	509,001	522,797	536,784	550,970	565,364	579,972
	big truck								
	159,187								
	87,204								
	50,906								
	36,905								
	30,256								
	27,216								
	25,503								
	24,909								
	25,703								
	27,381								
1000 Linth Cost (Dhrs (1000 line)	2.00/	2.0%	2.0%	2.0%	2.05/	2.0%	2.00/	2.004	2.00/
	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
крп	2024	2025	2026	2027	2028	2029	2030	2031	2032
5	88,342	90,993	93,/23	96,534	99,430	102,413	105,486	108,650	111,910
1()	51 154	52.688	54 269	55 897	57 574	59 301	61.080	62 912	64 800

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	2024	2025	2026	2027	2028	2029	2030	2031	2032
5	88,342	90,993	93,723	96,534	99,430	102,413	105,486	108,650	111,910
10	51,154	52,688	54,269	55,897	57,574	59,301	61,080	62,912	64,800
20	30,236	31,144	32,078	33,040	34,031	35,052	36,104	37,187	38,303
30	22,617	23,296	23,995	24,715	25,456	26,220	27,006	27,816	28,651
40	18,820	19,385	19,967	20,566	21,183	21,818	22,473	23,147	23,841
50	17,209	17,726	18,257	18,805	19,369	19,950	20,549	21,165	21,800
60	16,595	17,093	17,606	18,134	18,678	19,239	19,816	20,410	21,023
70	16,615	17,113	17,626	18,155	18,700	19,261	19,839	20,434	21,047
80	17,227	17,744	18,276	18,825	19,389	19,971	20,570	21,187	21,823
90	18,189	18,734	19,296	19,875	20,471	21,086	21,718	22,370	23,041
VOC (Php Million) @30kph									
Section	2031	2032	2033	2034	2035	2036	2037	2038	2039
Arterial Road	4,749	5,034	5,333	5,647	5,974	6,318	6,680	7,060	7,459
Total	4,749	5,034	5,333	5,647	5,974	6,318	6,680	7,060	7,459

2031	2032	2033	2034	2035	2036	2037
4,749	5,034	5,333	5,647	5,974	6,318	6,680
4,749	5,034	5,333	5,647	5,974	6,318	6,680
	2031 4,749 4,749	2031 2032 4,749 5,034 4,749 5,034	2031 2032 2033 4,749 5,034 5,333 4,749 5,034 5,333 4,749 5,034 5,333	20312032203320344,7495,0345,3335,6474,7495,0345,3335,647	203120322033203420354,7495,0345,3335,6475,9744,7495,0345,3335,6475,974	2031203220332034203520364,7495,0345,3335,6475,9746,3184,7495,0345,3335,6475,9746,318

AADT Forecast (Veh/day)									
Section	2040	2041							
Arterial Road	20,799	21,256							
AADT Forecast (PCU-km)									

Section	2040	2041
Arterial Road	592,764	605,788

VOC Unit Cost (Php/1000km)	3.0%	3.0%
kph	2033	2034
5	115,267	118,725
10	66,744	68,746
20	39,452	40,635
30	29,510	30,396
40	24,556	25,293
50	22,454	23,128
60	21,653	22,303
70	21,678	22,329
80	22,478	23,152
90	23,732	24,444

VOC (Php Million) @30kph								
Section	2040	2041						
Arterial Road	7,853	8,266						
Total	7,853	8,266						

AADT Forecast (Veh/da	ay)									
9	Section	2042	2043	2044	2045	2046	2047	2048	2049	2050
Arte	erial Road	21,721	22,196	22,679	23,082	23,494	23,917	24,351	24,796	25,312
AADT Forecast (PCU-kn	n)									
5	Section	2042	2043	2044	2045	2046	2047	2048	2049	2050
Arterial Road		619,055	632,573	646,354	657,831	669,592	681,647	694,009	706,689	721,378

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	2035	2036	2037	2038	2039	2040	2041	2042	2043
5	122,287	125,955	129,734	133,626	137,635	141,764	146,017	150,397	154,909
10	70,809	72,933	75,121	77,374	79,696	82,087	84,549	87,086	89,698
20	41,854	43,110	44,403	45,735	47,107	48,521	49,976	51,475	53,020
30	31,308	32,247	33,214	34,211	35,237	36,294	37,383	38,504	39,660
40	26,052	26,833	27,638	28,468	29,322	30,201	31,107	32,041	33,002
50	23,822	24,536	25,272	26,031	26,811	27,616	28,444	29,298	30,176
60	22,972	23,661	24,371	25,102	25,855	26,631	27,430	28,253	29,100
70	22,998	23,688	24,399	25,131	25,885	26,662	27,461	28,285	29,134
80	23,846	24,562	25,299	26,058	26,839	27,645	28,474	29,328	30,208
90	25,177	25,933	26,711	27,512	28,337	29,187	30,063	30,965	31,894
VOC (Php Million) @30kph									
Section	2042	2043	2044	2045	2046	2047	2048	2049	2050
Arterial Road	8,700	9,157	9,637	10,103	10,592	11,106	11,646	12,215	12 <i>,</i> 843
Total	8,700	9,157	9,637	10,103	10,592	11,106	11,646	12,215	12,843

AADT Forecast (Veh/day)								
Sect	tion	2051	2052	2053 2054	2055	2056	2057	2058
Arterial	al Road 2	5,839 2	26,379 26	5,932 27,499	28,023	28,562	29,117	29,273
AADT Forecast (PCU-km)								
Sect	tion 2051	2052	2053	2054	2055	2056	2057	2058
Arterial Road	7	86,412 7	751,804 76	7,569 783,721	798,666	814,030	829,830	834,293

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	2044	2045	2046	2047	2048	2049	2050	2051	2052
5	159,556	164,343	169,273	174,352	179,582	184,970	190,519	196,234	202,121
10	92,389	95,161	98,016	100,956	103,985	107,104	110,317	113,627	117,036
20	54,610	56,249	57,936	59,674	61,464	63,308	65,208	67,164	69,179
30	40,849	42,075	43,337	44,637	45,976	47,356	48,776	50,240	51,747
40	33,992	35,012	36,062	37,144	38,258	39,406	40,588	41,806	43,060
50	31,082	32,014	32,975	33,964	34,983	36,032	37,113	38,227	39,373
60	29,973	30,872	31,799	32,753	33,735	34,747	35,790	36,863	37,969
70	30,008	30,908	31,835	32,790	33,774	34,787	35,831	36,906	38,013
80	31,114	32,048	33,009	33,999	35,019	36,070	37,152	38,267	39,415
90	32,851	33,836	34,851	35,897	36,974	38,083	39,225	40,402	41,614
VOC (Php Million) @30kph									
Section	2051	2052	2053	2054	2055	2056	2057	2058	
Arterial Road	13,504	14,200	14,932	15,704	16,484	17,305	18,170	18,816	
Total	13,504	14,200	14,932	15,704	16,484	17,305	18,170	18,816	

AADT Forecast (Veh/day)

Section

Arterial Road

AADT Forecast (PCU-km) Section

Arterial Road

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	2053	2054	2055	2056	2057	2058
5	208,185	214,430	220,863	227,489	234,314	241,343
10	120,547	124,163	127,888	131,725	135,676	139,747
20	71,254	73,392	75,593	77,861	80,197	82,603
30	53,299	54,898	56,545	58,241	59,989	61,788
40	44,352	45,682	47,053	48,464	49,918	51,416
50	40,555	41,771	43,024	44,315	45,645	47,014
60	39,108	40,282	41,490	42,735	44,017	45,337
70	39,153	40,328	41,538	42,784	44,067	45,389
80	40,597	41,815	43,069	44,361	45,692	47,063
90	42,863	44,148	45,473	46,837	48,242	49,690

VOC (Php Million) @30kph

Section

Arterial Road

Total

AADT Forecast (Veh	/day)							
	Section	Distance (km)	2023	2024	2025	2026	2027	2028
Expressway Project		19	0	56,782	65,302	67,976	70,673	73,394
AADT Forecast (PCU	-km)							
	Section		2023	2024	2025	2026	2027	2028
Expressway Project			0	1,649,384	1,896,874	1,974,536	2,052,873	2,131,910
			VOC Unit Cost (Php/100	0km)				
			kph	motor	car	hov	van	jeepney
			5	10,569	40,833	2,751	50,508	37,123
			10	6,036	23,032	15,605	29,444	20,599
			20	3,692	13,848	9,654	18,481	12,603
			30	2,892	10,705	7,227	13,928	10,021
			40	2,459	9,111	5,989	11,303	8,568
			50	2,252	8,208	5,433	10,526	8,339
			60	2,210	7,982	5,190	9,970	8,763
			70	2,234	7,997	5,133	10,043	9,493
			80	2,306	8,181	5,219	10,430	10,349
			90	2,437	8,560	5,530	11,093	11,124
VOC Unit Cost (Php/2	1000km)	inflation	3.0%	3.0%	4.0%	3.0%	3.0%	3.0%
	kph	ave voc	2016	2017	2018	2019	2020	2021
	5	67,056	69,068	71,140	73,985	76,205	78,491	80,846
	10	38,828	39,993	41,193	42,840	44,126	45,449	46,813
	20	22,951	23,639	24,349	25,323	26,082	26 <i>,</i> 865	27,671
	30	17,168	17,683	18,213	18,942	19,510	20,095	20,698
	40	14,286	14,714	15,156	15,762	16,235	16,722	17,223
	50	13,063	13,455	13,858	14,412	14,845	15,290	15,749
	60	12,597	12,975	13,364	13,898	14,315	14,745	15,187
	70	12,611	12,990	13,379	13,914	14,332	14,762	15,205
	80	13,076	13,469	13,873	14,427	14,860	15,306	15,765
	90	13,806	14,220	14,647	15,233	15,690	16,160	16,645
VOC @80kph (Php N	1illion)							
	Section		2023	2024	2025	2026	2027	2028
Expressway Project			0	10,371	12,285	13,172	14,105	15,088
Total			0	10,371	12,285	13,172	14,105	15,088

SUMMARY	SUMMARY AADT Forecast (PCI - km)								
AADT Forecast (PCU-km)	AADT Forecast (PCU-km)								
Section	2023		2025	2030	2035	2040			
Expressway Project		0	65,302	78,428	90,245	102,322			

2029	2030
76,140	78,428
2029	2030
2,211,677	2,278,141
bus	small truck
93.469	142.009
53.098	75.606
32 400	42 023
25 393	30 270
23,555	24 690
21,505	21,050
20,781	21,740
21,020	10,120
21,002	19,105
23,140	10,274
21,121	15,655
3.0%	3.0%
2022	2023
83,271	85,769
48,217	49,004
20,501	29,550
21,519	21,959
17,740	16,272
10,221	10,708
15,043	10,112
10,001	10,131
10,238	10,725
17,144	17,059
2029	2030
16,122	17,105
16,122	17,105
2045	2050
113,554	124,523

AADT Forecast (Veh/day)									
Section	2031	2032	2033	2034	2035	2036	2037	2038	2039
Expressway Project	80,743	83,087	85,460	87,863	90,245	92,659	95,108	97,592	100,114
AADT Forecast (PCU-km)									
Section	2031	2032	2033	2034	2035	2036	2037	2038	2039
Expressway Project	2,345,393 big truck 159,187 87,204 50,906 36,905 30,256 27,216 25,503 24,909 25,703 27,381	2,413,466	2,482,391	2,552,204	2,621,378	2,691,512	2,762,644	2,834,814	2,908,063

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	2024	2025	2026	2027	2028	2029	2030	2031	2032
5	88,342	90,993	93,723	96,534	99,430	102,413	105,486	108,650	111,910
10	51,154	52,688	54,269	55,897	57,574	59,301	61,080	62,912	64,800
20	30,236	31,144	32,078	33,040	34,031	35,052	36,104	37,187	38,303
30	22,617	23,296	23,995	24,715	25,456	26,220	27,006	27,816	28,651
40	18,820	19,385	19,967	20,566	21,183	21,818	22,473	23,147	23,841
50	17,209	17,726	18,257	18,805	19,369	19,950	20,549	21,165	21,800
60	16,595	17,093	17,606	18,134	18,678	19,239	19,816	20,410	21,023
70	16,615	17,113	17,626	18,155	18,700	19,261	19,839	20,434	21,047
80	17,227	17,744	18,276	18,825	19,389	19,971	20,570	21,187	21,823
90	18,189	18,734	19,296	19,875	20,471	21,086	21,718	22,370	23,041

VOC @80kph (Php Million)									
Section	2031	2032	2033	2034	2035	2036	2037	2038	2039
Expressway Project	18,138	19,224	20,366	21,567	22,816	24,130	25,510	26,962	28,488
Total	18,138	19,224	20,366	21,567	22,816	24,130	25,510	26,962	28,488



AADT Forecast (Veh/day)									
Section	2040	2041	2042	2043	2044	2045	2046	2047	2048
Expressway Project	102,322	104,570	106,860	109,194	111,573	113,554	115,584	117,665	119,799
AADT Forecast (PCU-km)									
Section	2040	2041	2042	2043	2044	2045	2046	2047	2048
Expressway Project	2,972,202	3,037,509	3,104,030	3,171,814	3,240,910	3,298,460	3,357,430	3,417,878	3,479,861

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
kph	2033	2034	2035	2036	2037	2038	2039	2040	2041
5	115,267	118,725	122,287	125,955	129,734	133,626	137,635	141,764	146,017
10	66,744	68,746	70,809	72,933	75,121	77,374	79,696	82,087	84,549
20	39,452	40,635	41,854	43,110	44,403	45,735	47,107	48,521	49,976
30	29,510	30,396	31,308	32,247	33,214	34,211	35,237	36,294	37,383
40	24,556	25,293	26,052	26,833	27,638	28,468	29,322	30,201	31,107
50	22,454	23,128	23,822	24,536	25,272	26,031	26,811	27,616	28,444
60	21,653	22,303	22,972	23,661	24,371	25,102	25,855	26,631	27,430
70	21,678	22,329	22,998	23,688	24,399	25,131	25,885	26,662	27,461
80	22,478	23,152	23,846	24,562	25,299	26,058	26,839	27,645	28,474
90	23,732	24,444	25,177	25,933	26,711	27,512	28,337	29,187	30,063
VOC @80kph (Php Million)									
Section	2040	2041	2042	2043	2044	2045	2046	2047	2048
Expressway Project	29,990	31,569	33,228	34,972	36,806	38,583	40,451	42,415	44,480
Total	29,990	31,569	33,228	34,972	36,806	38,583	40,451	42,415	44,480

AADT Forecast (Veh/day)				
Section	2049	2050	2051	2052
Expressway Project	121,988	124,523	127,119	129,775
AADT Forecast (PCU-km)				
Section	2049	2050	2051	2052
Expressway Project	3,543,442	3,617,095	3,692,476	3,769,654

VOC Unit Cost (Php/1000km)	3.0%	3.0%	3.0%	3.0%
kph	2042	2043	2044	2045
5	150,397	154,909	159,556	164,343
10	87,086	89,698	92,389	95,161
20	51,475	53,020	54,610	56,249
30	38,504	39,660	40,849	42,075
40	32,041	33,002	33,992	35,012
50	29,298	30,176	31,082	32,014
60	28,253	29,100	29,973	30,872
70	28,285	29,134	30,008	30,908
80	29,328	30,208	31,114	32,048
90	30,965	31,894	32,851	33,836

VOC @80kph (Php Million)				
Section	2049	2050	2051	2052
Expressway Project	46,651	49,050	51,574	54,231
Total	46,651	49,050	51,574	54,231

AADT Forecast (Veh/day)									
Section	Link Length (km)	Time (min)	2023	2024	2025	2026	2027	2028	2029
Arterial Road	19	57	0	68,324	78,576	81,793	85,038	88,313	91,617
AADT Forecast (PCU-time)									
Section			2023	2024	2025	2026	2027	2028	2029
Arterial Road			0	5,841,727	6,718,275	6,993,337	7,270,787	7,550,720	7,833,235
			Travel Time Unit Cost (Php	p/min)					
				motor	car	taxi	jeepney	bus	hov
			Php/min	1.11	1.80	1.54	0.92	1.18	1.41
Travel Time Unit Cost (Php/min)	inflation	3.09	% 3.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	ave ttc	201	6 2017	2018	2019	2020	2021	2022	2023
Php/min	1.31	1.3	4 1.39	1.44	1.48	1.53	1.57	1.62	1.67
TTC (Php Million) @ 20 kph									
Section			2023	2024	2025	2026	2027	2028	2029

Section	2023	2024	2025	2026	2027	2028	2029
Arterial Road	0	3,668	4,345	4,658	4,988	5,336	5,702
Total	0	3,668	4,345	4,658	4,988	5,336	5,702

AADT Forecast (Veh/day)									
Section	2030	2031	2032	2033	2034	2035	2036	2037	2038
Arterial Road	94,370	97,156	99,976	102,831	105,723	108,588	111,494	114,440	117,430
AADT Forecast (PCU-time)									
Section	2030	2031	2032	2033	2034	2035	2036	2037	2038
Arterial Road	8,068,634 truck 1.18	8,306,826	8,547,922	8,792,040	9,039,299	9,284,299	9,532,697	9,784,629	10,040,237
Travel Time Unit Cost (Php/min)	3.0% 2024	3.0% 2025	3.0% 2026	3.0% 2027	3.0% 2028	3.0% 2029	3.0% 2030	3.0% 2031	3.0% 2032
Php/min	1.72	1.77	1.82	1.88	1.94	1.99	2.05	2.12	2.18
TTC (Php Million) @ 20 kph									
Section	2030	2031	2032	2033	2034	2035	2036	2037	2038
Arterial Road	6,049	6,415	6,799	7,203	7,627	8,069	8,534	9,022	9,535
Total	6,049	6,415	6,799	7,203	7,627	8,069	8,534	9,022	9,535

AADT Forecast (Veh/day)									
Section	2039	2040	2041	2042	2043	2044	2045	2046	2047
Arterial Road	120,464	123,121	125,826	128,582	131,390	134,252	136,636	139,079	141,583
AADT Forecast (PCU-time)									
Section	2039	2040	2041	2042	2043	2044	2045	2046	2047
Arterial Road	10,299,667	10,526,834	10,758,135	10,993,737	11,233,810	11,478,534	11,682,362	11,891,220	12,105,310
Travel Time Unit Cost (Php/min)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Php/min	2.24	2.31	2.38	2.45	2.53	2.60	2.68	2.76	2.84
TTC (Php Million) @ 20 kph									
Section	2039	2040	2041	2042	2043	2044	2045	2046	2047
Arterial Road Total	10,075 10,075	10,606 10,606	11,165 11,165	11,751 11,751	12,368 12,368	13,017 13,017	13,645 13,645	14,306 14,306	15,000 15.000

AADT Forecast (Veh/day)	2040								
Section	2048	2049	2050	2051	2052	2053	2054	2055	2056
Arterial Road	144,150	146,784	149,835	152,958	156,155	159,429	162,784	165,888	169,079
AADT Forecast (PCU-time)									
Section	2048	2049	2050	2051	2052	2053	2054	2055	2056
Arterial Road	12,324,840	12,550,028	12,810,890	13,077,871	13,351,217	13,631,182	13,918,032	14,183,435	14,456,284
Travel Time Unit Cost (Php/min)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Php/min	2.93	3.02	3.11	3.20	3.30	3.39	3.50	3.60	3.71
TTC (Php Million) @ 20 kph									
Section	2048	2049	2050	2051	2052	2053	2054	2055	2056
Arterial Road	15,731	16,499	17,347	18,240	19,179	20,169	21,211	22,264	23,373
Total	15,731	16,499	17,347	18,240	19,179	20,169	21,211	22,264	23,373

AADT Forecast (Veh/day)							
Section	2057	2058					
Arterial Road	172,361	173,288					

AADT Forecast (PCU-time)									
Section	2057	2058							
Arterial Road	14,736,876	14,816,134							

Travel Time Unit Cost (Php/min)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2051	2052	2053	2054	2055	2056
Php/min	3.82	3.94	4.05	4.18	4.30	4.43

TTC (Php Million) @ 20 kph									
Section	2057	2058							
Arterial Road	24,542	25,414							
Total	24,542	25,414							

3.0%	3.0%
2057	2058
4.56	4.70

AADT Forecast (Veh/day)									
Section	Link Length (km)	Time (min)	2023	2024	2025	2026	2027	2028	2029
Arterial Road	19	38	0	11,542	13,274	13,817	14,365	14,919	15,477
AADT Forecast (PCU-time)									
Section			2023	2024	2025	2026	2027	2028	2029
Arterial Road			0	657,893	756,609	787,587	818,833	850,359	882,176
		1	Travel Time Unit Cost (Php,	/min)					
				motor	car	taxi	jeepney	bus	hov
			Php/min	1.11	1.80	1.54	0.92	1.18	1.41
Travel Time Unit Cost (Php/min)	inflation	3.0%	3.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	ave ttc	2016	2017	2018	2019	2020	2021	2022	2023
Php/min	1.31	1.34	1.39	1.44	1.48	1.53	1.57	1.62	1.67
TTC (Php Million) @30kph									

ric (rip Million) @30kph							
Section	2023	2024	2025	2026	2027	2028	2029
Arterial Road	0	413	489	525	562	601	642
Total	0	413	489	525	562	601	642

AADT Forecast (Veh/day)									
Section	2030	2031	2032	2033	2034	2035	2036	2037	2038
Arterial Road	15,942	16,412	16,889	17,371	17,860	18,344	18,835	19,332	19,837
AADT Forecast (PCU-time)									
Section	2030	2031	2032	2033	2034	2035	2036	2037	2038
Arterial Road	908,686 truck 1.18	935,511	962,663	990,156	1,018,002	1,045,594	1,073,568	1,101,941	1,130,727
Travel Time Unit Cost (Php/min)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2024	2025	2026	2027	2028	2029	2030	2031	2032
Php/min	1.72	1.77	1.82	1.88	1.94	1.99	2.05	2.12	2.18
TTC (Php Million) @30kph									
Section	2030	2031	2032	2033	2034	2035	2036	2037	2038
Arterial Road	681	722	766	811	859	909	961	1,016	1,074
Total	681	722	766	811	859	909	961	1,016	1,074

AADT Forecast (Veh/day)									
Section	2039	2040	2041	2042	2043	2044	2045	2046	2047
Arterial Road	20,350	20,799	21,256	21,721	22,196	22,679	23,082	23,494	23,917
AADT Forecast (PCU-time)									
Section	2039	2040	2041	2042	2043	2044	2045	2046	2047
Arterial Road	1,159,944	1,185,527	1,211,576	1,238,110	1,265,147	1,292,707	1,315,662	1,339,184	1,363,295
Travel Time Unit Cost (Php/min)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2033	2034	2035	2036	2037	2038	2039	2040	2041
Php/min	2.24	2.31	2.38	2.45	2.53	2.60	2.68	2.76	2.84
TTC (Php Million) @30kph									
Section	2039	2040	2041	2042	2043	2044	2045	2046	2047
Arterial Road	1,135	1,194	1,257	1,323	1,393	1,466	1,537	1,611	1,689
Total	1,135	1,194	1,257	1,323	1,393	1,466	1,537	1,611	1,689

AADT Forecast (Veh/day)									
Section	2048	2049	2050	2051	2052	2053	2054	2055	2056
Arterial Road	24,351	24,796	25,312	25,839	26,379	26,932	27,499	28,023	28,562
AADT Forecast (PCU-time)									
Section	2048	2049	2050	2051	2052	2053	2054	2055	2056
Arterial Road	1,388,018	1,413,379	1,442,757	1,472,824	1,503,608	1,535,138	1,567,443	1,597,332	1,628,060
Travel Time Unit Cost (Php/min)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Php/min	2.93	3.02	3.11	3.20	3.30	3.39	3.50	3.60	3.71
TTC (Php Million) @30kph									
Section	2048	2049	2050	2051	2052	2053	2054	2055	2056
Arterial Road	1,772	1,858	1,954	2,054	2,160	2,271	2,389	2,507	2,632
Total	1,772	1,858	1,954	2,054	2,160	2,271	2,389	2,507	2,632

AADT Forecast (Veh/day)						
Section	2057	2058				
Arterial Road	29,117	29,273				

AADT Forecast (PCU-time)							
Section	2057	2058					
Arterial Road	1,659,661	1,668,587					

Travel Time Unit Cost (Php/min)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2051	2052	2053	2054	2055	2056
Php/min	3.82	3.94	4.05	4.18	4.30	4.43

TTC (Php Million) @30kph						
Section	2057	2058				
Arterial Road	2,764	2,862				
Total	2,764	2,862				

3.0%	3.0%
2057	2058
4.56	4.70

AADT Forecast (Vel	n/day)							
	Section	Distance (km)	Time (min)	202	3 202	4 2025	2026	2027
Expressway Project		19	15		0 56,78	2 65,302	67,976	70,673
AADT Forecast (PCL	J-time)							
	Section			2023	2024	2025	2026	2027
Expressway Project					0 1,237,03	3 1,422,655	1,480,902	1,539,655
				Travel Time Unit Cost	: (Php/min)			
					motor	car	taxi	jeepney
				Php/min	1.1	1 1.80	1.54	0.92
Travel Time Unit Co	st (Php/min)	inflation	3.0%	3.09	4.0 %	6 3.0%	3.0%	3.0%
		ave ttc	2016	201	7 201	8 2019	2020	2021
Php/min		1.31	1.34	1.3	9 1.4	4 1.48	1.53	1.57

TTC @80kph (Php Million)					
Section	2023	2024	2025	2026	2027
Expressway Project	0	777	920	986	1,056
Total	0	777	920	986	1,056

2028	2029
73,394	76,140
2028	2029
1,598,933	1,658,758
bus	hov
1.18	1.41
3.0%	3.0%
2022	2023
1.62	1.67

2028	2029
1,130	1,207
1,130	1,207

AADT Forecast (Veh/day)									
Section	2030	2031	2032	2033	2034	2035	2036	2037	2038
Expressway Project	78,428	80,743	83,087	85,460	87,863	90,245	92,659	95,108	97,592
AADT Forecast (PCU-time)									
Section	2030	2031	2032	2033	2034	2035	2036	2037	2038
Expressway Project	1,708,606 truck 1.18	1,759,045	1,810,099	1,861,793	1,914,153	1,966,034	2,018,634	2,071,983	2,126,110
Travel Time Unit Cost (Php/min)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2024	2025	2026	2027	2028	2029	2030	2031	2032
Php/min	1.72	1.77	1.82	1.88	1.94	1.99	2.05	2.12	2.18

TTC @80kph (Php Million)									
Section	2030	2031	2032	2033	2034	2035	2036	2037	2038
Expressway Project	1,281	1,358	1,440	1,525	1,615	1,709	1,807	1,910	2,019
Total	1,281	1,358	1,440	1,525	1,615	1,709	1,807	1,910	2,019

AADT Forecast (Veh/day)					
Section	2039	2040			
Expressway Project	100,114	102,322			

AADT Forecast (PCU-time)							
Section	2039	2040					
Expressway Project	2,181,047	2,229,152					

Travel Time Unit Cost (Php/min)	3.0% 2033	3.0% 2034
Php/min	2.24	2.31

TTC @80kph (Php Million)								
Section	2039	2040						
Expressway Project	2,134	2,246						
Total	2,134	2,246						

AADT Forecast (Veh/day)									
Section	2041	2042	2043	2044	2045	2046	2047	2048	2049
Expressway Project	104,570	106,860	109,194	111,573	113,554	115,584	117,665	119,799	121,988
AADT Forecast (PCU-time)									
Section	2041	2042	2043	2044	2045	2046	2047	2048	2049
Expressway Project	2,278,132	2,328,023	2,378,860	2,430,683	2,473,845	2,518,073	2,563,408	2,609,896	2,657,581

Travel Time Unit Cost (Php/min)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2035	2036	2037	2038	2039	2040	2041	2042	2043
Php/min	2.38	2.45	2.53	2.60	2.68	2.76	2.84	2.93	3.02

TTC @80kph (Php Million)									
Section	2041	2042	2043	2044	2045	2046	2047	2048	2049
Expressway Project	2,364	2,488	2,619	2,756	2,890	3,029	3,176	3,331	3,494
Total	2,364	2,488	2,619	2,756	2,890	3,029	3,176	3,331	3,494

AADT Forecast (Veh/day)								
Section	2050	2051	2052	2053	2054	2055	2056	2057
Expressway Project	124,523	127,119	129,775	132,497	135,285	137,865	140,517	143,244
AADT Forecast (PCU-time)								
Section	2050	2051	2052	2053	2054	2055	2056	2057
Expressway Project	2,712,821	2,769,357	2,827,240	2,886,525	2,947,268	3,003,470	3,061,248	3,120,666

Travel Time Unit Cost (Php/min)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2044	2045	2046	2047	2048	2049	2050	2051
Php/min	3.11	3.20	3.30	3.39	3.50	3.60	3.71	3.82

TTC @80kph (Php Million)								
Section	2050	2051	2052	2053	2054	2055	2056	2057
Expressway Project	3,673	3,862	4,061	4,271	4,492	4,715	4,950	5,197
Total	3,673	3,862	4,061	4,271	4,492	4,715	4,950	5,197